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Vol. III

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No. 1

MOSAIC DECORATED STONE MASKS IN ANCIENT MEXICO

Masks were extensively used throughout the Western Hemisphere in pre-Columbian times, largely in religious or semi-religious ceremonies, but also in dances and festivals of a secular character. They were fashioned of many different materials, such as wood, basketry, hide, paper, cloth, pottery, shell, gold, silver, copper, and stone. Only in Mexico were stone masks relatively abundant, and the greater number of examples preserved are attributable to the Nahuan or Mexican people of the great plateau in central Mexico, which culminates in the Valley of Mexico. Here this ancient people long resided and reached their highest cultural development. The Museum has a precious collection of wooden masks decorated with turquois mosaic from the mountainous

region adjoining at the south, which have been described and illustrated in a recent publication.¹

The materials from which the stone masks were carved are, among others, diorite, serpentine, obsidian, jadeite, onyx, and marble. Generally they are about the size of the human face, although occasional smaller examples have been found. The Museum has a number of interesting masks of this nature from central Mexico. Its slowly increasing collection of important specimens illustrating the archeology of ancient Mexico has received a noteworthy addition in the recent gift by Mr. Harmon W. Hendricks of a remarkable stone mask. It is impossible to determine with exactness whether this object belongs to the late Aztecan or to the earlier Toltecan period, but it may safely be assigned to one or the other of these cultures in either the Valley of Mexico or in the region adjacent, in the states of Guerrero, Puebla, or Tlaxcala. With the exception of one other specimen, so far as the writer is aware, no other masks of this particular type have come to light, and the two will now be illustrated for the first time.

¹ Marshall H. Saville, Turquois Mosaic Art in Ancient Mexico, Contributions from the Museum of the American Indian, Heye Foundation, vol. vi, New York, 1922. In this work are illustrated twelve mosaic masks of wood and two of human skulls.

We shall first call attention to the mask in the Museum, presented in fig. 1. This noteworthy specimen, carved from a compact brownish-black stone, is about $6\frac{1}{2}$ inches high and of equal width between the extremities of the ear-ornaments. At the top are three small perforations, not seen from the front. Two perforations are found also at the sides below the ears, and the ears themselves are perforated. The peculiar feature of the mask lies in the two depressed bands extending horizontally across the face for the insertion of mosaic. The bands are cut into the surface of the stone to a depth varying from one-sixteenth to three-sixteenths of an inch, leaving a roughened surface to permit the adhesion of the matrix, either a gum or a kind of cement, in which the pieces of mosaic were no doubt set. The upper band extends across the eyes and the upper part of the nose the full width of the face to the conventional ear expansions. The band across the mouth is nearly twice the width of the other, and is three-quarters of an inch shorter on each side of the face. Both the eyes and the mouth, with the exception of the lips, are only roughly outlined. The nose is aquiline and well executed. There is no question as to the mosaic character of the decoration which once formed the chief feature of this mask.

For the sake of comparison we present a drawing

of the other mask of this nature (fig. 2), which is in the National Museum of Mexico. It is about the same size as our specimen, but is not quite so



Fig. 1.—Stone mask in the Museum of the American Indian, Heye Foundation, formerly inlaid probably to represent the god Huitzilopochtli. (Height, $6\frac{1}{2}$ in.)

well preserved, a chip having been broken from the chin, and the nose and ear expansions being mutilated. A narrow band has been cut across the

face from beyond the eyes, and another across the mouth and extending to the nose. There is a smaller and deeper excavation in this band at the



Fig. 2.—Stone mask in the Museo Nacional of Mexico, formerly inlaid probably to represent the god Tezcatlipoca

mouth, in each end of which there are evidences of drilling. Similar areas are excavated and exhibit drill marks where the eyes would normally be.

Above the mouth band on each cheek of this

mask is found a unique feature, viz., a deep circular depression unquestionably designed for the insertion of a small mirror, either of obsidian or more probably of pyrites or hematite. The four areas excavated for the bands and discs left little of the original polished surface of the face below the forehead. The nose, the rear parts of the cheeks, and the forehead, are all that were not ornamented with extraneous materials.

With respect to the deities which these masks represented or to which they were dedicated, it may be said that identification might be possible if we could know the nature of the materials that had formed the mosaic bands. The gods Tezcatlipoca and Huitzilopochtli are painted in colors in the codices with two horizontal facial bands. In the Sahagun manuscript in the Royal Palace of Madrid,2 in the plates devoted to the dress of these deities, we find Tezcatlipoca painted with two black bands, one over the lower part of the face below the mouth, the other above the mouth and below the eyes, the two separated by a blue band. The figure of Huitzilopochtli has two blue bands below and above the mouth respectively. The blue bands on each mask undoubtedly represent tur-

² Bernardino de Sahagun, Historia de las Cosas de Nueva España, published for the Mexican Government by Francisco del Paso y Troncoso, Atlas, vol. v1, pl. v11, nos. 1 and 3.

quois or chalchihuite mosaic, while the black bands on the face of Tezcatlipoca probably were of obsidian or jet. In the Codex Magliabecchiano3 is a painting of Tezcatlipoca with the two black face bands, while in the representation of Huitzilopochtli we again encounter the two blue bands. In both codices our identification of these two gods is verified by means of the written explanations accompanying the illustrations. Other paintings of these two deities are found in various codices with the characteristic facial decoration of horizontal bands.

But these two major gods of the Mexicans are not unique in possessing this characteristic. In the manuscript of Sahagun, above cited, is a drawing of another god, called Otontecutli, having two black bands of this character on its face. According to Seler4 this deity pertained to the Tepanec and the Otomi, for whom the Mexicans were accustomed to hold at times a feast. In the Codex Borgia⁵ and in other codices the god Xiuhtecutli, god of fire, of war, is shown with two bands on the face, respectively over the eyes and over the mouth to the base of the nose.

is on page 43.

4 Eduard Seler, Ein Kapitel aus dem Geschichtswerk des P. Sahagun, Berlin.

³ Codex Magliabecchiano, p. 37. The god Huitzilopochtli

⁵ Codex Borgia, edition of the Duc de Loubat, pls. 13 and 14.

It seems safe to assume that the masks under consideration belonged to the cult of either Tezcatlipoca or Huitzilopochtli. Indeed we may even go farther and hazard the conjecture that the mask in the National Museum of Mexico might possibly be attributed to the cult of Tezcatlipoca, owing to the presence of the two circular depressions in the cheeks, which probably contained small mirrors of iron pyrites or of hematite, an almost everpresent accompaniment of that deity, whose name indeed signifies "the smoking mirror." In such case we may also venture to state, in the absence of this feature in our mask, that it probably pertained to the god Huitzilopochtli. In the British Museum is a skull mask decorated with mosaic and having broad transverse bands across the face. The bands across the eyes and the mouth are of turquois; three other bands are of lignite, while the eyes are of pyrites. This mask has been identified by Maudslay3 as representing Tezcatlipoca. The presence of the blue bands in the same position as those depicted by Sahagun renders it possible that Huitzilopochtli is here intended to be symbolized, although we cannot be positive of this.

⁶ Alfred P. Maudslay, translator and editor of The True History of the Conquest of New Spain by Bernal Diaz del Castillo, vol. 1, p. 299, pl. xxiii.

The character of these two masks, considered as a type, has a direct bearing on the famous turquois mosaic mask reputed to have been found recently in the State of Guerrero, Mexico, the genuineness of which has been the subject of much controversy, as it does not have the sunken banded features. We have been of the opinion that, as mosaic applied directly to the surface of a polished or semi-polished object of stone would soon drop off, the general procedure would have been to abrade the surface, or, as in the case of the masks under consideration, to cut out sections in which to embed the decoration in its matrix of cement or gum.

MARSHALL H. SAVILLE

SOME GAMES OF ARIKARA CHILDREN

SLINGS were made by Arikara boys, just as slings have been made the world over. A pliable piece of hide was cut into elliptical shape about the length of the hand, and with a hole in the center. At each end was attached a thong about as long as the arm. The missile was thrown by swinging in a rotary motion and released by letting go one of the

⁷ This mask is described and illustrated in colors in *Boletin del Museo Nacional de Arqueologia*, *Historia y Etnografia*, Mexico, tomo 1, 4ª epoca, núm. 3, Sept. 1922. It contains also a number of "dictamens" by various persons in favor of the genuineness of the mask.

thongs from between the thumb and finger; the other thong was held securely by being wrapped in several turns about the middle finger. Boys amused themselves by throwing pebbles at targets with slings.

Mud-balls.—Boys played at mimic battle with mud-balls, which they threw at their opponents from the end of a resilent wand.

Mud-balls and Fire.—In the fall, at corn-shelling time, when the cobs were burned in the evening, the boys delighted to make mud-balls and attach them to wands as described above, and then dip them into the burning corncobs. The brands adhered to the mud-balls and were hurled through the air. This was a night-time game, the main attraction in it being the spectacle of the flying firebrands. However, added zest was given to this sport in the circumstance of circumventing the watchfulness of the women who were burning the cobs for the purpose of obtaining salt from the ash, and who naturally were exasperated by the boys messing up and destroying their ash-beds.

Willow wands.—Boys made sets of wands of straight young willows. These were peeled and stained with berry juices or other coloring matter, or were marked with fire. This was done by cutting off part of the bark in rings or spirals, and then holding the wands over the fire. After thus

being subjected to heat and smoke, the remainder of the bark was removed. This left the wands marked in designs of smoke-brown on white.

The object of this game was to send the wands forward as far as possible from a given stand by propelling from the hand with a glancing stroke upon the ground. The stake was the set of wands, as in the game of marbles among white boys when they play for "keeps". The boy who sent a wand the farthest took all the wands played.

Coasting.—Boys and girls separately or together played at coasting, and in various ways. Sometimes a woman might have a buffalo-hide which had not been dressed, and which required to be worked into pliability and from which she also wished to have the hair removed. She would let the youngsters have it for coasting. They would drag it to a hilltop and crowd on, as many as could find room. Then away they would go sliding down the hill. This action would be repeated until they were tired of the game, or until the hide became too pliable to slide easily. In this way the children enjoyed great sport, while at the same time they were performing a useful service for the woman who owned the hide by depilating it and at the same time making it pliable, which she otherwise would have had to do at the expense of much hard labor.

Another device for coasting was made of buffaloribs joined together with sticks tied across their ends with sinew. Sometimes they attached a head at the front, and tail at the back, with a piece of old buffalo-robe to sit on. A thong attached at the front was used for guiding.

Stilts.—Both boys and girls walked on stilts which they made from poles, leaving a stump of a fork on the side at the height they desired for a foot-rest, which was bound to the trunk piece

with a wrapping of thong.

Snaring Ground-squirrels.—In early spring the boys made nooses of horsehair or other material which would slip easily, and with long strings attached they placed the noose over the opening of the burrow of a ground-squirrel, the "flickertail," and waited for the animal to appear. When it did so, the watching boy jerked the noose and captured the animal. He killed it and set the noose again, and so continued. After catching as many squirrels as they wished, a group of boys would make a fire, roast their game, and have a hunters' feast. After the wild onions began to grow, the boys no longer engaged in this sport, because the ground-squirrels would feed on the wild onions and their flesh was disagreeable for eating.

MELVIN R. GILMORE

ARIKARA COMMERCE

In aboriginal times the course of the Missouri river formed a great artery of intertribal commerce between north and south, and, along its tributaries, between east and west. By means of these natural travel-ways there was much interchange of natural products from mountains and valleys, from prairies and forests; much interchange of ideas, of stories, of poetic and mythologic conceptions; of knowledge of their world, its geography and natural resources, habits and customs, arts and crafts of various peoples of different racial stocks and cultural inheritances. The Arikara, of Caddoan stock, was a tribe of the highest development of the arts of life, of material and mental culture, known in the region of the Great Plains or of the areas contiguous to it. The products of their agriculture were eagerly sought by the tribes of the High Plains to the west of them and of the mountains beyond, in neither of which regions could agriculture be carried on. At the time of green corn the agricultural tribes along the river, among which the Arikara were foremost, were sure to have many visitors from the Plains tribes. These tribes noted the time of the appearance of the blossoms of the blazing star (Liatris scariosa and L. pycnostachya). When these flowers came into bloom they would say: "Now the Arikaras' corn is coming into condition for eating. Let us go and visit them." So they resorted to the villages of the Arikara, bringing with them gifts from the products of the natural resources of their own country and of their own handicraft, and enjoyed feasts of green corn with their Arikara hosts. At this time, and again in the fall, when the ripe corn, beans, squashes, and sunflower seeds were harvested, distant Indians came to the Arikara and other agricultural tribes, and for many days engaged in mutual exchange of commodities.

The most common unit of measure of commodities was the *hunansádu*, the measure of content of the common burden-basket, the capacity of which was about a bushel. One *hunansádu* of shelled corn was considered equal in value to one ordinary good buffalo-robe or two packs of dried meat.¹

Štešta-kata said: "The commodity of which we got most from the Dakota was dried tipsin-roots. Tipsin [Psoralea esculenta, the Arikara name of which is hsúoka] grows abundantly in our country, but our women feared the Dakota too much to go out on the prairie far from the villages to gather it.

he Dakota made strings of it of standard length. The length of a tipsin string was one arm-reach. They also split and dried the roots loose. We

¹ See Indian Notes, vol. 11, no. 1, p. 64, January, 1925.

traded one hunansádu of shelled corn for four strings of tipsin roots, plus one hunansádu of dried split roots of tipsin."

The Arikara obtained dried chokecherries from the Dakota, although they also put up some for themselves. When they bought them from the



Fig. 3.—Mrs. Four-rings roasting corn for drying for winter use.

Laying the ears on the wood ready to be fired

Dakota they paid one bunansádu of shelled corn for one-half bunansádu of dried chokecherries. When they bought dried Juneberries (Amelanchier alnifolia), they paid for them the same price as for chokecherries. Juneberries are easier to prepare for drying than chokecherries, but harder to

gather. The chokecherries are easy to gather, but the process of pounding to a pulp and drying is laborious, hence they were equalized in price.

The standard string of dried squash was one full double arm-reach, i.e., the distance between the finger-tips of the two hands with the arms outstretched horizontally. Four strings of dried squash were paid to the Dakota for one nicely tanned, plain buffalo-robe. Of course, decorated robes, painted or embroidered with procupine-quills, brought proportionately higher prices. Four strings of dried squash would also bring three packs of dried meat. A meat pack was two cubits long, one cubit wide, and one cubit thick.

One *bunansádu* of shelled corn was ordinarily the price for two packs of dried meat. A good, ordinary, well-tanned buffalo-robe was also priced at one *bunansádu* of shelled corn.

Štešta-kata said the Arikara had some trade with the Chippewa from beyond the Red River of the North, but it was very little in comparison with their commerce with the tribes of the High Plains. She said the Chippewa brought dried meat, and wanted in exchange for it robes and articles of clothing. She said they also brought maplesugar, but as to the price of sugar she could not remember. Another informant said that the Chippewa brought dried meat, hides, and tobacco.

Presumably the tobacco was derived by trade with the Hudson's Bay Company; if so, it was the ordinary tobacco of the white man's commerce, which was *Nicotiana tabacum*, the species obtained originally from the West Indies.



Fig. 4.—Braided strings of seed-corn curing on a scaffold

From other sources it was learned that various commodities came to the Missouri River region by intertribal commerce from very considerable distances. Dentalium-shells from the North Pacific coast found their way there. Certain medicinal

products from western Montana, and other plant products from Arizona, were imported.

There are no deposits nor springs containing salt in the Arikara country, nor within a long distance from there, and because of its weight it was impossible within the limits of their means of transportation to import any considerable quantity of this commodity; hence its scarcity and the difficulty of obtaining it made it very dear. Small quantities were imported and were regarded as of great medicinal value. In the medicine-bag of a certain Arikara woman there is a small lump of salt remaining from the old time of its preciousness, when it was not in common table use, but was used only by medical prescription.

In commenting on the Arikara, Lewis and Clark, writing in 1804 (Original Journals, vol. vi, pp. 89–90), say: "They maintain a partial trade with their oppressors, the Tetons, to whom they barter horses, corn, beans, and a species of tobacco which they cultivate, and receive in return guns, ammunition, kettles, axes, and other articles which the Tetons obtain from the Yanktons of N. and Sissatones, who trade with Mr. Cammeron, on the river of St. Peters. These horses and mules the Ricaras obtain from their western neighbors, who visit them frequently for the purpose of trafficking."

MELVIN R. GILMORE

THE PRAIRIE CREE TIPI

Before the coming of white men into the Canadian Northwest, the Prairie Cree, like most of the Plains Indians, made their tipis of buffalo-skin.

When the buffalo disappeared, canvas was substituted, and today this material is used exclusively for tipi-making even by the most isolated Cree bands.

lege of the writer last summer, while on the Piapot reserve in Saskatchewan, to be enabled to witness and to photograph the erection of a Prairie Cree tipi, which

It was the privi-

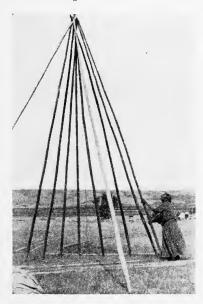


Fig. 5.—Placing the poles in position

was to be the home of Rock-Thunder, an influential man in the councils of the tribe and a follower of the old Indian road. Rock-Thunder has two wives, the younger of whom seemed to be in

charge of the proceedings. The older or first wife apparently had nothing to say as to where the tipi was to stand, and did not assist in any way.



Fig. 6.—The western pole is placed on the tipi cover

Wife number two selected a level spot on the prairie, tied together the small ends of three poles (takopitasiwan), then with the help of a young girl put the tripod approximately in place over the selected spot. The ground was next measured by eye and the poles evenly, arranged then thirteen more poles were leaned in position against the tripod in such manner that their larger ends formed

a circle on the ground a little smaller than the tipi was to be (fig. 5). As it was explained, these poles are always placed "in the path of the sun,"

that is, the first one is put to the right of the door, which whenever possible faces the east, but in any event toward one of the cardinal points. Another

pole is placed a few feet from the first, and so on around the circle, until the west is reached; here one pole is omitted.

When the last pole has been placed to the left of the doorway, the one which is supposed to occupy the space at the west is laid on top of the tipi cover, which rests on the ground near the opening (fig. 6). Now Rock-Thunder was called, and with his right



Fig. 7.—Rock-Thunder prays

hand aloft and facing the east (fig. 7) he uttered the following prayer:

"Today is the day I put up my home. I leave

you to the care of the four winds. Today is the day you see yourself in my lodge where you can do as you please. We cannot tell you to do this



Fig. 8.—The tipi cover is lashed to the western pole and raised

and that; we are only men. You, our Maker, direct us whether it be bad or good; it is your will. Help us to think of you every day we live in this lodge; guard us in our sleep; wake us in the morning with clean minds for the day, and keep harm from us."

After this invocation the tipi cover was lashed to the pole lying upon it, and raised to the top of the

space referred to (fig. 8). The canvas was then spread around the poles (fig. 9), and pinned together above and below the door with small peeled sticks, called *atchilapakweiguma* (fig. 10).

The three poles first erected were sunk in the ground a few inches, and the loose ones pulled outward so that the canvas rested tightly upon

them. An extra pole (kakwapakwana) on the outside of the canvas was placed in a pocket in the smoke-hole wing to be moved about according to the direction of the wind (fig. 11). The sides were then staked to the ground with short wooden pins (pistakahogema, fig. 13), and the tipi was ready for occupancy.

An incident occurred in Cappell valley a few years



Fig. 9.—The tipi cover in place

ago in which the Prairie Cree tipis played an interesting part. The flat prairies of Saskatchewan are noted for strong winds, but one night a hurricane arose, tents blew down, the government barns

were reduced to kindling, and there was considerable loss of animal life on the reservations. In the



Fig. 10.—Pinning the cover with small wooden pins

nearby city of Regina many people lost their lives and thousands of dollars' worth of damage was done. But according to stories told by the Indians, not a tipi was destroyed, and everyone remained standing. In explanation of this phenomenon the Indians said that the furious wind which came from every direction showed that Kitche Manito was angry with the people of the earth, as they were forgetting that he

was their creator. The Indians, who live in tipis, do not forget Manito, especially the older people

who are close to him. The paintings on the tipis guarded the occupants; Manito knew their owners had clean hearts and were always thinking about him

The following brief explanation of the symbolic paintings on his tipi (figs. 9, 12) was given by Rock-Thunder:

1. This is the road we travel through life; it is guarded by the thunderbird (2), the lightning (3), and the sun (4). When we reach the end of the road, if it be day (5A) or night (5B), we are received by Manito. The moon and the stars look



Fig. 11.—Placing the extra pole in the pocket of the smoke-hole wing

for us and come out both day and night (6A, 6B).

If we have lived clean lives the wide road to the real home of Manito (7) is opened, and we live

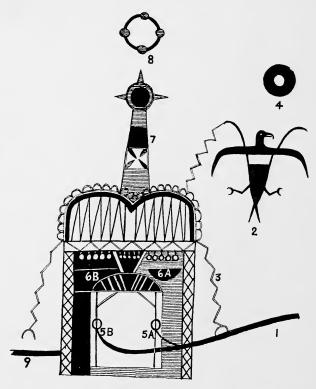


Fig. 12.—Symbolism of the tipi painting

forever in the place whence he sends the four winds (8). Those who have not lived clean lives,



Fig. 13.—Pinning down the tipi

however, take another road (9), which leads into the ground, and what happens there we do not know.

D. A. Cadzow

A CROW PICTOGRAPHIC ROBE

During the season of 1925 there was obtained for the Museum an example of pictography that is particularly interesting because it was possible to record a translation of the devices composing it. Incidentally the acquisition of this specimen illustrates the care that must be taken by the ethnologist in gathering specimens in the field; he must ever bear in mind that intertribal visits are largely responsible for the occurrence of exotic artifacts among almost every tribe. It is well known that Indians usually prefer to offer for sale objects made by members of other tribes, rather than those of their own tribesmen, a tendency that has often led to error in judging the origin of certain specimens. It is therefore important that the ethnologist be sure of the provenience of each object collected.

While among the Flatheads last summer I visited an old Indian known as Pierre Lamoose, whose native name signifies Black-Tail-Deer. After the usual formalities I acquired a small specimen of Flathead art. Feeling, however, that the old man had more interesting objects, I remained and talked. Nearly an hour elapsed, yet nothing further was offered. When about to depart, Lamoose's wife arose, left the house, and went to the

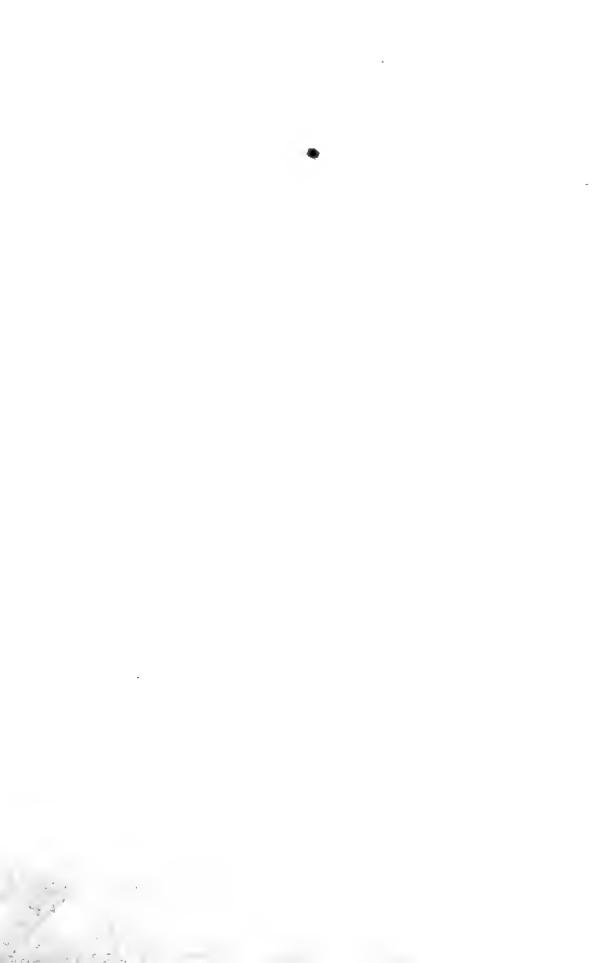


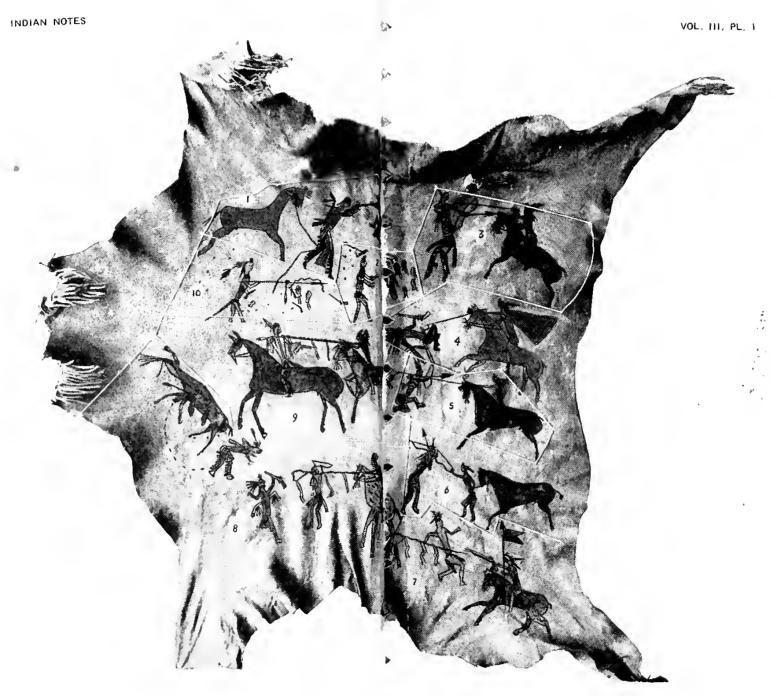


A CROW



IC ROBE





A CROW PRAPHIC ROBE

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barn, soon returning with a folded elk-robe under her arm, which she silently deposited in front of me. Unfolding the robe, there was revealed the specimen illustrated in pl. 1. Asking Lamoose who painted the robe, he answered, "Flathead did it."

But the devices painted on the robe did not seem to be of Flathead origin, so I persisted in my inquiry, which ultimately drew from the old man the admission that the skin had been given to him many years ago by a Crow friend named Spotted-Tail, who had painted it.

While visiting the Crow reservation a few weeks later, I made it a point to substantiate Lamoose's assertion, as well as to learn the meaning of the picture-writing, taking the robe with me for the purpose. Showing it to several older Crows, they identified it without exception as of Crow origin and gave me the meaning of its pictography.

Ten episodes in the lives of different Crow warriors are depicted on the robe, as follows:

r. In this figure a Crow named "Trot," also known as Spies-On-The-Enemy, a brother of one of the best-known Crow chiefs of the early '70's, named Pretty-Eagle, is represented to be taking a gun from a Sioux whom he has wounded. Trot, who had dismounted, is recognized by the medicine he carried on his back, as well as by his facial

painting. The medicine is an arrow bundle, which, together with the robe, is in possession of the Museum.

- 2. In this is illustrated an episode in the life of Medicine-Crow, another famous Crow warrior, who on one of his war-parties surrounded and killed seven Sioux.
- 3, 4, 5, 6, and 7 illustrate coups won by White-Swan, famous Crow warrior and at one time a scout for General Custer.

In 3, White-Swan is shown about to ride down a Sioux, although the latter was shooting at him, a feat which White-Swan duly accomplished. This occurred, according to my informant, at Heart butte, a peak near Cody, Wyoming.

In 4 is shown White-Swan in the battle of Big-Shoulder-Blade (the country between the Bighorn and the Little Bighorn, a few miles south of the present town of Hardin, Montana), a battle famous in Crow history. In this encounter White-Swan was known to wear a red cape, and he is recognizable also by the medicine hair-lock attachment shown on each of the figures 3 to 7. This warrior is represented in the act of killing a Sioux with his lance, while the enemy is armed with rifle and pistol. This daring feat was always counted as an important coup in favor of White-Swan.

Illustrated in 5 is an episode which occurred

near Coburn, about seven miles south of Billings, Montana, where White-Swan counted coup on a wounded Sioux, who, although his leg was broken by a Crow bullet, fought desperately. White-Swan rode toward the Sioux and struck him first with his coup-stick, then returned and hit him again, and finally killed him.

In 6 is illustrated one of White-Swan's most famous deeds. He is shown whipping a Sioux until the enemy dropped all of his weapons, which were taken by this famous Crow warrior. The Sioux was not killed, but was allowed to go, thereby becoming forever disgraced. This feat likewise was performed at the battle of Big-Shoulder-Blade.

White-Swan is seen in 7 acting in his official capacity as Custer's scout (shown by the standard borne by him). In this battle he rode a pinto horse, which was wounded several times, and White-Swan himself was wounded in the leg; but notwithstanding these handicaps, he counted coup on his enemy by striking him with his coupstick and then killing him.

In picture 8 are shown two Crows and two Sioux, the former on the extreme right and left. The left-hand one, whose name could not be ascertained, has just ridden past the two cornered Sioux, who succeeded in desperately wounding the Crow war-

rior's horse. But the Crow succeeded in breaking a leg of one of the Sioux, and is returning, ready to count coup on him. Meanwhile the Crow on the extreme right, identified as Covers-Up-His Face, has counted coup on his adversary by striking him with his coup-stick. The Crows escaped later, but it could not be learned whether the two Sioux were ultimately killed.

No. 9 shows Young-Rabbit, a Crow warrior, recognizable by his paintings, counting coup on an enemy, the figure at the left. This episode apparently was considered a famous deed on the part of Young-Rabbit, as it is very generally known among the older Crows. The enemy, a Sioux known as Strong-Heart, escaped, but his name was not learned until after peace was established between the tribes. Young-Rabbit was a member of the Crazy Dog society, whose insignia he wears. He was also the Crow who led the rebellion of 1890, when he was killed.

The significance of the device represented by 10 could not be established, beyond the fact that it depicts Trot, or Spies-On-The-Enemy, fighting a number of foes.

WILLIAM WILDSCHILT

CHEYENNE MEDICINE BLANKET

During the summer of 1925 an interesting specimen illustrating a phase of Cheyenne culture was obtained by the writer. This object, a buffalo-hide robe, contains a number of patterns worked in colored porcupine-quills. At first it seemed almost impossible to obtain information respecting the robe, but finally its last owner, the one from whom it was procured, was induced to relate its history. Much, of course, could still be learned about the robe, but sufficient data were obtained to show that it was once the property of a medicine-man known as the "Caller of Game," referring particularly to the buffalo.

The robe has probably been renewed several times, as its origin is shrouded in the mystery of the past. Apparently all that is known with respect to this is that it was obtained in a vision during a fast by its original owner, who claimed to have had it given to him by the moon and stars.

The most important figure on the robe is represented by r, a natural pit in the Black hills of South Dakota. Limpy relates that when a boy, about sixty years ago, he had seen as many as three hundred buffalo driven over the edge of this pit. Although mostly used for trapping buffalo,

deer and antelope also were caught in this pitfall, according to the informant.

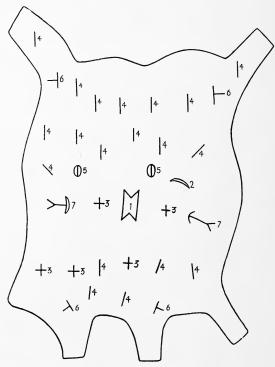


Fig. 14.—Symbolism of the Cheyenne medicine blanket

During the preparation of these game drives, and while they were in progress, the robe was used ceremonially by the leader of the hunt as a medi-

cine blanket, and with the accompanying ceremony was considered most potent.

Figs. 2 and 3 represent the moon and stars respectively, important forces for the success of game drives and immediately responsible for the origin of the robe.

The lines numbered 4 represent buffalo tracks leading toward the pit.

The bisected ovals, 5, represent hoof-prints of the same animals.

The recurring figure 6 symbolizes in each case the wings of brush or stones which were placed at regular intervals, leading toward the central pit. Behind these wings the Indians hid themselves until the game was passing, when they rose suddenly and frightened the animals with their cries and by waving robes or brush, this commotion stampeding the animals in the direction of the fall.

The two figures 7 are symbolic of a cyclone. According to the Cheyenne belief this game pit was never made by human hands, but was originally created by a cyclone. These figures further indicate that as the driven animals neared the pit, the dust raised by their hoofs was caught by the wind and, whirling upward, helped to blind and confuse them.

According to my informant the robe played such an important part in the early history of the

Cheyenne that it was always given a prominent place in the Sun dance and in several other tribal ceremonies.

WILLIAM WILDSCHUT

SENECA CHARM CANOES

WHILE sojourning among the Seneca Indians of the Allegany reservation in southwestern New York last February, the writer was fortunate enough to obtain from Mrs. Lucy Logan, an old woman of the Snipe clan who claimed to have reached the age of ninety-four years, two packages containing two and four small model canoes respectively. These models, which had been in possession of the Logan family for more than a century, represent wooden dugout canoes, with their paddles, which were kept as personal charms by their former owners. It is a matter of interest that this type of fetish has long been known from the Iroquois, for Samuel Crowell¹ made the following notes on the so-called "Seneca" (probably Andaste or Erie) of the Ohio in 1830:

"Hard Hickory told me of a dream he had lately had and gave me the following narration:

"He dreamed he was fleeing from an enemy, it

¹ See W. W. Beach, Indian Miscellany, Albany, 1877, p. 328.

was, he supposed, something supernatural; perhaps, an evil spirit; that, after it had pursued him a long time, and for a great distance, and every effort to escape from it seemed impossible as it was just at his heels, and he almost exhausted; at this perilous juncture, he saw a large water, towards

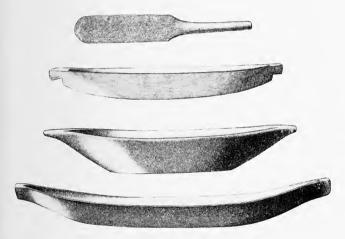


Fig. 15.—Seneca charm canoes and paddle. (Length of the longest canoe, 6.7 in.; of the paddle, 3.8 in.)

which he made with all his remaining strength, and at the very instant when he expected each bound to be his last, he beheld, to his joy, a canoe near the shore; this appeared as his last hope; breathless and faint, he threw himself into it, and, of its own accord, quick as an arrow from the

bow, it shot from the shore leaving his pursuer on the beach!

"While relating this circumstance to me, which he did with earnestness, trepidation and alarm, strongly expressed in his countenance, he took from his bosom something neatly and very carefully enclosed in several distinct folds of buckskin. This he began to unroll, laying each piece by itself, and on opening the last, there was enclosed therein, a canoe in miniature! On handing it to me to look at, he remarked, that no other person save himself and me, had ever seen it, and that, as a memento, he would wear it, as 'long as he lived.' It was a piece of light wood, resembling cork, about six inches long, and, as intended, so it was, a perfect model of a canoe."

The writer has seen and collected similar charm canoes, usually explained as fetishes to keep the owner from drowning, among the Menomini and the Potawatomi of both Forest and Prairie bands. Their use was probably widespread among the Central Algonkians.

As no account of the appearance of the fullsize dugout canoes of the Iroquois has ever come down to us, so far as the writer is aware, these charm canoes have an added interest, inasmuch as they probably represent with accuracy the ancient forms used by the Seneca.

ALANSON SKINNER

AN UNUSUAL CANADIAN DISC PIPE

ONE of the most extraordinary pipes in the Museum is of disc form, of indurated fireclay, catalogued as having been found in Flamboro township, about two miles southwest of the famous Neutral stronghold at Lake Medad, Ontario. The pipe (fig. 16) bears around the border of the bowl, in bas-relief, the grotesquely carved figure of a quadruped, presumably an otter, judging by the length of tail and body, and the relatively short legs. From the mouth of the animal a zigzag line extends into the body, no doubt the "life line" commonly seen in Indian pictographs. Beneath the bowl are some nondescript etchings, perhaps unfinished drawings. Incised figures and portraits are not uncommon on stone pipes from Ontario, it seems.1

It is interesting to note that the disc pipe has been identified by Mr. Francis LaFlesche, of the Bureau of American Ethnology, as a Siouan form, and examples have been found by Mr. LaFlesche and Mr. M. R. Harrington in sacred bundles of the Osage and Kansa Indians, in which, it may be observed, the pipes were found to be attached to their stems through the cylindrical portion that

¹ W. J. Wintemberg, Examples of Graphic Art on Archæological Artifacts from Ontario, *Transactions of the Royal Society of Canada*, 3d ser., xvIII, pp. 33–50, pl. 1–1v, Ottawa, 1924.

projects beneath the disc, and, contrary to the published opinions of McGuire and West,² not through the disc itself.

While disc pipes have been found among the Kansa and Osage, as mentioned above, they seem to be lacking among the Iowa, Oto, and Missouri, who prefer other forms. However, of the large collection in the Public Museum of the City of

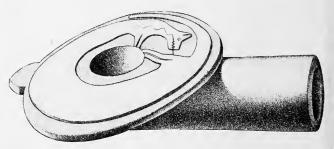


Fig. 16.—Disc pipe from Ontario. $(\frac{3}{4})$

Milwaukee, brought together largely by Mr. West, nearly all examples of this type come from the old territory of the Winnebago.

The question arises as to how this typically Siouan form came to be found in the heart of the Neutral Iroquois territory. Strange articles have

² J. D. McGuire, Pipes and Smoking Customs of the American Aborigines, *Report U. S. National Museum for 1897*, p. 487, Washington, 1899. G. A. West, Aboriginal Pipes of Wisconsin, *Wisconsin Archeologist*, vol. 1v, p. 131 et seq., Milwaukee, 1904–05.

been taken from Neutral graves before. Copper and shell ornaments of Gulf States types were found in the great cemetery at St. Davids, near Niagara Falls, and from a Neutral grave at Lake Medad a barbed grooved ax of a type found only in Michigan was taken by Dr. J. O. MacGregor of Waterdown, Ontario, and is now in our collection.

The occurrence of the Siouan disc pipe in Flamboro may be accounted for as having been lost by some tribal delegate from the West, or perhaps as a trophy taken by some Neutral warrior in the wars against the tribes of Michigan and Wisconsin, of which the Jesuits have left us records. That it was an article of trade seems less probable. The Iroquois were all well provided with strikingly characteristic pipes of their own, and as these implements were doubtless at least semi-ceremonial among all Indian peoples, their use as media of trade was probably very limited.

Alanson Skinner

CACHE OF BLADES FROM LONG ISLAND

It is well known to have been the custom of Indians to hide, or cache, in the ground or the snow, or beneath a cairn, for security until needed, stores of surplus provisions, as well as such implements and other articles as were not immediately required or were difficult to transport. Sometimes caches of implements were made evidently for religious reasons, if one may judge by the manner of their disposal and by the fact that often the objects are beautifully chipped and bear no indication of ever having been put to use.

Many of the buried stores of perishable materials, such as food, having been forgotten or for some other reason were never recovered by their owners, soon practically disappeared; but others, consisting of objects made of such almost indestructible materials as stone, bone, copper and shell, are occasionally unearthed in the old Indian country.

Within the limits of Long Island, New York, two long-forgotten caches of stone implements have been discovered. In the spring of 1863, William Brower, while plowing a field bordering the creek flowing to Rockaway Landing, near Rockville Center, discovered a cache of two copper axes and two of stone, surrounded by a hundred chipped blades of black chert set upright in a circle. By reason of the position of these objects, the cache was probably a ceremonial one, not intended to be recovered. Two examples from this cache are shown in fig. 17.

The second Long Island cache of stone implements was found by Mr. John Messenger at

Indian Neck, Peconic, in July, 1924, and presented by him to the Museum, as mentioned in a brief note



Fig. 17.—Blades from a cache at Rockaway Landing near Rockville Center, Long Island, in 1863

in *Indian Notes* for January, 1925. The position of the implements when uncovered was in no sense

peculiar; indeed they were scattered throughout an area of six by eight feet. When buried they probably were close together, but had been disturbed by plowing.



Fig. 18.—Blades and arrowpoint from a cache found at Peconic, Long Island, by Mr. John Messenger in 1924

This cache consisted of one hundred and fifty-one specimens of brown and black chert, of which one hundred and nine are leaf-shape blades with straight base, fairly uniform in shape but differing in size. The smallest is two and a half inches in length by two inches in maximum width,

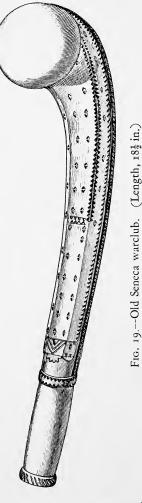
while the largest is seven and a quarter inches long by three and five-eighths inches wide. The remainder consists of forty-one flakes of varying shapes and sizes, from an inch and a half to four inches in length, and an inch to two and a half inches in width. The exceptional implement from the deposit is a small stemmed arrowpoint, seven-eighths by three-quarters of an inch. This specimen, together with others from the cache, are illustrated in fig. 18.

FOSTER H. SAVILLE

AN OLD SENECA WARCLUB

While attending the annual midwinter festival of the Seneca Indians on the Allegany reservation in southwestern New York during the first two weeks of February, 1925, the writer was repeatedly told of an ancient wooden warclub, said by the Indians to have belonged formerly to Red Jacket, the famous Seneca chief and orator. After a number of attempts, the owner, William Bomberry, a member of the Wolf clan, was at last interviewed and the specimen acquired for the Museum.

According to Mr. Bomberry, the club had been given by Red Jacket to "Old Chief Smoke," and by him to William Wedge, who gave it to his grandson about fifty years ago. The grandson was



a relation of William Bomberry, and through him it fell into the latter's hands.

According to the Handbook of American Indians there was Seneca chief named Sayenqueraghta, or Smoke Revanishes, also known as "Old King," and "Old Smoke," a contemporary of Red Jacket, who resided on Smokes creek, five or six miles south of Buffalo, where he died prior to 1788. Horatio Hale, however, tells of another chief of the same name, who was a veteran of the War of 1812,1 and as this man, better known as John "Smoke" Johnson, of Mohawk blood, was also a comtemporary of

¹ Iroquois Book of Rites, Philadelphia, 1883, pp. 39-40.

Red Jacket and noted as an orator when the latter was in his prime, probably he was the recipient of the club from the great Seneca. This seems the more likely, as the tradition obtained by the writer states that the weapon was used in the War of 1812.

As for William Wedge, a photograph of this individual, who was at one time head-chief and fire-keeper of the Canadian Cayuga of Grand River reservation, Canada, is given as pl. LXIX of the Twenty-first Annual Report of the Bureau of American Ethnology, as an illustration in J. N. B. Hewitt's Iroquois Cosmogony. Mr. Hewitt collected the data in the late nineties.

The weapon (fig. 19), which seems to be quite old, measures 26 inches in length, following the outer curve, or $18\frac{1}{2}$ inches measured by the axis, and is not well balanced. It is carved apparently from hard maple, and has been rubbed with red ocher. The type is an ancient one, and was widely distributed east of the Mississippi.

As the illustration shows, the handle is incised with a series of small figures which seem to be of a purely decorative character. On the butt is rudely carved the letter W, possibly an initial of William Wedge. Whether the weapon was once really the property of Red Jacket, as seems probable, or not, it is a fine example of an old-style Seneca warclub.

ALANSON SKINNER

MR. CADZOW'S FIELD TRIP OF 1925

The field-work commenced by Mr. Cadzow in the summer of 1924 at the prehistoric Algonkian burial site on Frontenac island, Cayuga lake, New York, was resumed early in May, 1925. A fifteen-foot trench was dug half-way across the island, commencing at its eastern shore. Twelve burials, together with numerous artifacts of stone and bone, were unearthed, and much additional information was recorded. Although a comparative study of the objects has not as yet been made, their nature and the position of the burials tend to indicate that the site is related to the first period of aboriginal occupancy in northern New York.

Late in June Mr. Cadzow proceeded to Portage la Prairie, Manitoba, to collect objects illustrating the ethnology of the Bungi Indians, a tribe not hitherto represented in the Museum collections. Several Bungi bands were visited within a radius of seventy-five miles from Portage la Prairie, and many interesting specimens were gathered, including several antique birch-bark scrolls on which are etched secret records and rituals of the Midéwin, or Medicine Lodge, society. Other ceremonial as well as utilitarian objects were gathered, consequently the Museum now possesses as complete a

collection illustrating Bungi ethnology as it is now possible to obtain. These include a series of ethno-botanical specimens, together with some corresponding herbarium specimens.

The month of August and a part of September were spent among the Prairie Cree in south and central Saskatchewan. Authentic ethnologic material from these people was needed greatly to strengthen the Museum collections from the Canadian Northwest, hence it is gratifying that an interesting series of specimens, with related data, was gathered. Owing to the vast extent of territory covered by the Prairie Cree, it was manifestly impossible to get in touch with many of the important bands within a limited time; yet twelve reserves were visited, involving a trip covering several hundred miles. Many domestic objects, a few complete deerskin costumes, and several interesting ceremonial bundles, were obtained. Among the latter, perhaps the most important is the "Peace-pipe bundle" which is said to be the last in existence among the northern Prairie people.

Much of the success of Mr. Cadzow's field-work was due to the kind aid afforded by Mr. Duncan Scott, Deputy Superintendent General of Indian Affairs of Canada, who, by courteously furnishing a letter of introduction to Government agents,

opened the way to every facility that these gentlemen could reasonably afford.

THE GENERAL NELSON A. MILES COLLECTION

THE COLLECTION of ethnological and historical objects gathered by the late General Nelson A. Miles during his long military service in the West has been generously given to the Museum by his daughter and son, Mrs. Samuel K. Reber, and Major Sherman Miles, U. S. A. Among the objects, a list of which is given on pages 52-53, are five guns of special interest by reason of their historical and personal association. These had belonged to Chief Joseph of the Nez Percés, Gerónimo the Chiricahua Apache, and the Sioux Rain-in-the-Face, Lame Deer, and Sitting Bull. Of special ethnological significance are: an Arapaho shield painted with symbolic devices, including serpents and a turtle, and further embellished with eagle-feathers, scalp-locks, and beads; a drum from the same tribe, its frame a narrow wooden hoop over which is stretched the skin head, painted on both sides with designs representing a scalp on a pole, a pipe, a bear, and other symbolic devices; some unusually fine examples of bonnets with long trailers ornamented with eagle-

feathers, and some war clubs, one of which, a

most effectual weapon, consists of a staff in one edge of which are inserted three steel blades. Clothing and other articles ornamented with quill and bead embroidery are likewise included. Of basketry, a baby-carrier of the Apache, whose warfare ceased when General Miles compelled Gerónimo to surrender in the mountain fastnesses of Chihuahua in 1886, is an excellent example, and there is basketry from the Hupa of California and the Hopi of Arizona as well. The wide range of objects in the General Miles Collection is shown further by a paddle used by the Haida of Queen Charlotte islands in their great sea-going canoes, and a pair of snowshoes, five feet in length, from the Loucheux of the Far North. From various tribes are bows and arrows, together with ornamented quivers and bow-cases. Pipes of catlinite, accompanied with their cases highly decorated with bead and porcupine-quill work, are well represented. There are also a flute of the kind used by Sioux youth in their wooing; Navaho and Chilkat woven robes and a painted buffalo-skin robe; and a model of a tipi of earlier days painted to represent the surrender of Indians to General All these objects and others, together with some books and pamphlets, and a considerable aggregation of old Indian photographs, make the

collection not only of great ethnologic value, but one of high sentimental interest by reason of the association of the things composing it.

RECENT ACCESSIONS BY GIFT

From Mrs. Samuel K. Reber and Major Sherman Miles, U. S. A .: The General Nelson A. Miles Collection, consisting of the following:

Two gourd dippers. Salvador. Triangular metal breast-ornament, incised decoration.

Beaded shoulder-bag. Potawatomi.

Three arrows; bow; model of canoe; coat of intestine skins.

Two baskets; basket hat; otter-skin quiver containing bow with painted decoration and fragments of two arrows; basketry baby-carrier. Hupa.

Seven basketry plaques. Hopi, Arizona.

Fiber bag. Nez Percé.

Ten baskets; two large storage baskets warclub; pair of beaded moccasins; small leather bag with beaded decoration; strip of metal danglers on buffalo-skin, probably a dress ornament. Apache.

Basket. Mescalero Apache.

Model of birch-bark canoe. Penobscot, Maine.

Basket. Tlingit, Alaska.

Model of tipi, painted decoration representing Indians under Chief Lame Deer surrendering to General Miles. Teton-Sioux.

Pair of snowshoes used in hunting. Loucheux.

Warclub with three knife-blade points; peace flag of cotton cloth, painted decoration; eagle feather head-dress; beaded saddle cloth; painted buffalo-skin; human hair pendant ornament; buffalo-horn dance club; breastplate of dentalium shells; three beaded pipe-bags; quilled pipebag; catlinite pipe and wooden stem decorated with brass tacks; catlinite pipe and wooden stem; catlinite pipe inlaid with lead and with carved wooden stem; flute;

pair of quilled moccasins; pair of quilled moccasins procured from Chief Pretty Eagle who obtained them from the Sioux; two odd beaded moccasins. Sioux.

Two paddles, painted decoration; hide leg-ornament with four small coppers attached; wooden model of canoe, painted decoration, and paddle; mountain-goat horn spoon with carved handle; two slate dishes; slate box. Haida.

Quiver with beaded and painted decoration containing bow and twenty arrows; quiver, painted, containing incised and painted bow and fifteen arrows. Chiricahua Apache.

Rifle, belonging to Gerónimo, a Chiricahua Apache.

Rifle, belonging to Rain-in-the-Face, a Hunkpapa Sioux, surrendered to General Miles after the Bannock campaign.

Rifle, belonging to Lame-Deer, a Teton-Sioux.

Rifle, belonging to Sitting Bull, a Hunkpapa Sioux, taken after his death at Pine Ridge agency.

Rifle, in a deerskin case with beaded decoration; this belonged to Chief Joseph, Nez Percé.

Two bows. Kiowa Apache.

Four jars. Pueblo.

Large jar decorated with various paintings by a Caucasian. Pima.

Plaster cast of Kicking-Bear, Teton Sioux, by Carl Rohl Smith, 1892.

Three hair reatas. Papago.

Hair bridle. Mexico.

Horse-hide shield and cover with painted decoration; drum and fragment of stick; two pairs of leggings, painted and beaded decoration; deerskin shirt, painted decoration. Arapaho.

Two blankets. Navaho.

Beaded baby-carrier; pipe-bag. Crow.

Blanket. Chilkat, Alaska.

Printed cloth blanket made in Germany and used to trade to the Pueblos about 1875.

Eagle-skin; two walrus tusks; quirt.

Two feather head-dresses; beaded saddle-cloth; quilled shirt; beaded pipe-bag; three pairs of beaded moccasins. Cheyenne.

From Mr. Jacob Rosenzweig:

Jar, incised decoration. Elm Grove, W. Va.

From Dr. E. K. Burnett:

Article: "The First Families of Oklahoma," by Stanley Vestal (Walter Stanley Campbell).

From Mr. Edward Kurtz:

Four lots of potsherds. Worcester county, Md.

From Mr. Myron C. Taylor:

Limonite paint ball. Long Island.

From Mr. A. Law Voge:

Group made of the paste of guarona seed. Maure Indians, Amazon.

From Mr. John Tawonasetaste Waanaton: Wooden bowl; wooden spoon.

From Mr. Robert M. Falkenau, in memory of Louis Falkenau:

Baby-carrier, ornamented with beadwork, shells, and metal discs; pair of moccasins, beaded and fringed; two small beaded pouches, one of them additionally ornamented with metal tinklers; beaded needle-case.

From Miss Janet Falkenau, in memory of Louis Falkenau:

Beaded fillet with deerskin ties.

From Mr. William F. Kaelin:

Bow; five arrows. Lake Maracaibo district, Venezuela.

From R. L. Polk & Company:

Publication: A History of New York.

From Mr. Harry Roberts, Jr.:

Collection of stone implements. Maryland.

From Mr. Howland Gallatin Pell:

Grooved stone ax found about 1840. Pelham Manor, N.Y.

From Mr. Reginald Pelham Bolton:

Two wooden mortars; two stone pestles; stone ax. Vicinity of Stockbridge, N. Y.

From Mr. F. S. Dellenbaugh:

Water-bottle. Kaibab.

Bow. Northern Arizona.

From Mr. Franklin S. Smith:

Lot of stone specimens. Indiana and Maine.

Beaded amulet. Dakota.

Four photographs of Dakota Indians.

From Mr. L. F. H. Delany:

Stone knife. Vicinity of Eastham, Mass. From Mr. W. L. Calver:

Fourteen arrowpoints; knife; two blanks. Fort Ticonderoga, N. Y.

[54]

Three scrapers. Mount Independence, Vt. Arrowpoint. Inwood Hill Park, New York City. From. Mr. B. T. B. Hyde:

Print.

From Mr. P. F. Thompson:

Pair of garters; beaded bag. Winnebago.

From Mr. J. A. Jeançon:

Two copies of Indian Song Book.

From Mr. Prescott Van Wyck:

Wooden mortar; stone pestle; gorget; three celts; thirtytwo knife, spear, and arrow points. Neighborhood of Pompton, N. J.

NOTES

During the absence of the Director in Europe during the summer, Mr. Hendricks procured in New York three unusual archeological specimens, which he has added to the many objects already so generously given by him to the Museum. These are: The cover of a Chorotega jar from Nicaragua, elaborately modeled in the form of an alligator; a small Peruvian hand mirror of pyrites mosaic set in a carved wooden frame; and an object, probably of bronze, which resembles a hair-pin, except that its shaft, instead of ending in a point, is chisel-like. The upper or ornamented end of the last object represents a man in ceremonial costume and with inset turquois eyes and ear-pendants, in the act of slaying a woman. Brief articles describing and illustrating the jar-cover and the bronze object will appear later in Indian Notes, while the mirror will be treated in a paper devoted especially

to the subject of aboriginal American mirrors in preparation by Prof. M. H. Saville.

On December 12 Dr. S. K. Lothrop, having finished the proofreading of his memoir on Pottery of Costa Rica and Nicaragua, which is about to be published as Vol. VIII of Contributions from the Museum, departed for Guatemala to be present at the great fair held annually at Esquipulas, where many thousands of Indians from all parts assemble, thus affording an opportunity for studying native artifacts, especially textiles, a collection of which Dr. Lothrop expects to gather for the Museum. Later he will proceed to Salvador to conduct archeological researches in continuation of those commenced two years ago.

WHILE in Paris last summer the Director succeeded in acquiring for Mr. Harmon W. Hendricks, who has given it to the Museum, a most unexpected example of West Indian woodwork in the form of a seat, or *dubo*, a description and illustration of which will appear in a later issue of *Indian Notes*. The Museum has an exceptional collection of these rare objects from the Antilles.

Among the recent accessions of ethnological materials from Canada are a Nascapi collection

gathered by Dr. Frank G. Speck, a collection from the Saint Francis Abnaki of Quebec, assembled by Mr. A. Irving Hallowell, and another from the Têtes de Boule of Quebec, gathered by Mr. D. S. Davidson, a student in anthropology at the University of Pennsylvania.

MR. M. R. HARRINGTON proceeded to Pueblo Grande de Nevada at the close of November to resume excavations at that interesting site. Mr. Charles O. Turbyfill left for the same scene of operations on November 1 to continue excavation in the nearby Salt caves, which evidently had long been used by Indians as a source of supply.

THERE has been received by the Museum, from the Museo de La Plata, a large collection illustrative of the ethnology and archeology of northern Argentine, in return for North American material, the exchange having been arranged by the Director during his visit to the Argentine in 1924.

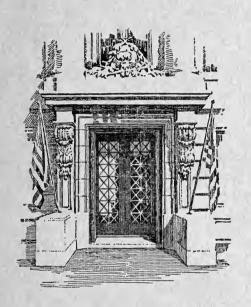
Before the unfortunate accident which resulted in the death of Mr. Skinner last August, he had gathered various ethnologic specimens among the Stockbridge Indians of Wisconsin and the Sisseton and Wahpeton Sioux of North Dakota, which have since been forwarded to the Museum.

Among the ancient objects received by the Museum in recent months are a collection from Sinaloa, Mexico, which includes stone pendants, some of them cruciform, besides the commoner forms of mortars, hammerstones, and gaming discs. The most striking of the artifacts are two pestles, at the end of one of which is carved a human head, while at the end of the other is the head of an animal.

THREE additional dried human heads prepared by the Mundurucu Indians of Brazil have been acquired, two of them with feather ornaments and tattoo designs, while the other has neither the usual eyes inlaid with shell and gum, nor the marks of tattooing, an absence rarely known to skulls of this kind.

Two stone seats from Manabí, Ecuador, have been received as a gift from Paul D. Cravath, Esq., of New York City. One of the seats is most unusual in that the carving of its lower part was never completed, although the arms and the upper portion are quite finished.

Mr. A. Hyatt Verrill has taken the field for the purpose of conducting archeological excavations in certain caves near Veragua, Panama.





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PORCUPINE-QUILL ORNAMENTATION

RECENT additions to the Museum collection illustrating porcupine-quill embroidery include five old pieces which unfortunately are accompanied with little or no data to enable positive determination of their provenience.

The first of these objects (fig. 20) is a bag or pouch made of exceptionally well-tanned deer-skin, stained black. Notwithstanding the age of this specimen, the leather has retained the fine velvety texture characteristic of the skill of expert tanners of past generations. A brief note accompanying the bag states: "All that I know of it is that in 1770 there was a man by the name of Merser or Mersier who sent this bag back to Scotland from New York and that the name of the tribe is not recorded in letters bearing that date and referring to the bag." The workmanship and design, however, leave little doubt that the



Fig. 20.—Delaware black deerskin bag with porcupinequill embroidery. 9 by 9½ inches. (14/3272) [60]

specimen is of Delaware handiwork, for the birds depicted on the bipointed flap, and the five conventionalized bird designs on the lower edge of the bag, are typical of that tribe.



Fig. 21.—Delaware pouch of black elkskin. Size, 7.5 inches square with flap turned down. (14/3271)

The technique employed in applying the quill decoration is of four common forms. The birds,

the diamond patterns, and other narrow lines in the embroidery consist of a series of foldings of the quills with a diagonal stitch between each fold, as described in an earlier publication.¹ The technique of the two broad bands across the lower part of the bag is illustrated in fig. 12 of the work cited, while the eight braided strands forming the shoulder-strap are described with fig. 33, and a short section is illustrated in fig. 59. The side seams of the bag were covered with quills, as shown in fig. 39, but little more than the stitches remain. Additional ornamentation is provided by a number of conical brass danglers with tufts of turkey-beard, dyed red, inserted in the larger apertures.

After having been sent to Scotland, this specimen in some unaccountable manner found its way back to America and finally was located in Victoria, B. C., where it was purchased and returned to New York.

An exquisite example of color combination, which however we can not reproduce at this time, is shown on an elkskin pouch (fig. 21), which likewise exhibits the esthetic skill of the Delawares. In this example the porcupine-quills have been dyed in the soft colors which alone were

¹ See Orchard, Technique of Porcupine-quill Decoration, Contr. Mus. Amer. Ind., Heye Found., vol. IV, no. 1, 1916.

produced by the carefully compounded native dyes that so readily gave way to the easily pre-

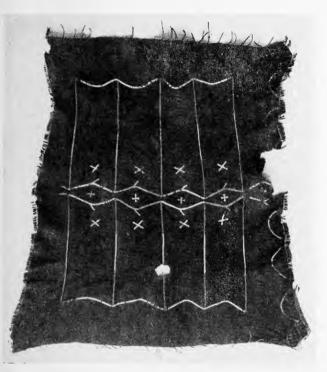


Fig. 22.—Deerskin robe, probably Assiniboin. Size, 50 by 59 inches. (14/257)

pared chemical colors introduced by European traders. The broad bands of design are composed

of lines of folded quills sewed in the manner described for fig. 12 of the earlier publication, while



Fig. 23—Iroquois deerskin robe with designs in porcupinequills. Size, 33 by 41 inches. Deposited by Daniel Carter Beard. (14/3269)

the edging and the fine lines are shown in figs. 40 and 47. There are outlines only of a fringe beneath the quillwork and at the bottom of the bag. An unusual method of attaching the fringe was employed, each strand having been passed through the leather directly beneath the lower edge of the quillwork and knotted, while at the base of the bag the strands of the fringe are inserted along the seam between the stitches and knotted on the inside. The seam has been sewed around with a leather thong, as shown in the illustration. A short note that accompanied this specimen stated that it was "given to the Cowling family of Seneca Falls, N. Y., by James Moody, an Adirondack guide about the time of the civil war, who stated that it came from Philadelphia about 1780."

A deerskin robe, about 50 by 59 inches, thought to have been made by the Assiniboin, is illustrated in fig. 22. There is no information with this specimen, except that many years ago it was taken to France, where it remained until its recent return to New York. The leather is rather roughly tanned, is very dark in color, and is provided with cut fringe around the four sides. Each strand of the fringe has had a wrapping of red-dyed quill. The wavy perpendicular lines and the crosses are of the technique illustrated in fig. 12 of our earlier

publication. The horizontal bands are composed of three rows of fine lines laid close together. The manner of sewing the quills to the leather is shown in fig. 45 of the work cited.

Two other objects of special interest are shown in figs. 23 and 24. These have been deposited by Mr. Daniel Carter Beard, National Scout Commissioner, with the information that "they were presented to Dr. Samuel Latham Mitchell, a scientist of note and at one time a Senator. He had succeeded in getting some bills through the Senate which very much pleased the Indians. At a gathering arranged for that purpose, therefore, the Iroquois Indians presented him with a decorated skin [fig. 23] and an otter medicine-bag [fig. 24] in commemoration of the event, probably admitting him to a membership in the Otter Society. This happened at the beginning of the last century, not later than 1812."

Mr. Arthur C. Parker, Director of the Municipal Museum of Rochester, N. Y., an authority on things pertaining to the Iroquois, states that about the year 1800, Handsome Lake, a Seneca prophet, sought to suppress all the famous sha-

¹ Dr. Mitchell was a commissioner in 1788 for treating with the Iroquois Indians for the purchase of lands. In 1801 he was elected a Representative in Congress; in 1804 he became a Senator, and at the expiration of his term was again elected to the House of Representatives.—*Editor*.

manistic societies and to prevent the use of any of their trappings in private or public gatherings. It may therefore be that the specimens were given to Dr. Mitchell not only because of their beauty but to invest him with paraphernalia which could no longer be used to advantage by the Indian people.

There are three techniques used in applying the porcupine-quills to the skin (fig. 23). The broad bands, and the hand-clasping human figures around the outer edge, are of the type shown in fig. 12, above referred to, while the fine lines are of the kind to be seen in fig. 45. The extreme edge has been covered with a wrapping the technique of which is illustrated in fig. 39. dyes used were unquestionably of native materials.

The specimen shown in fig. 24 is an example of excellent tan- Fig. 24.—Otter effigy ing, as well as of choice porcupine quillwork. The skin has been blackened by a pro-



of black deerskin. Length, 38 inches. Deposited by Daniel Carter Beard. (14/3270)

cess which, so far as known, has not been recorded. It is not an otter-skin, as the illustration would suggest, but a piece of deerskin made into a bag in the shape of an otter. The picture shows the back of the animal, while on the reverse small tabs of leather are sewed, representing the legs and feet, the claws being indicated by porcupine-quill embroidery. The three methods of sewing the quills are the same as those employed on the blanket.

Mr. Parker makes a further statement with reference to the last two specimens: "There is an allusion to the use of the ceremonial blanket and the otter effigy in one of the rituals of the Seneca, and I have been impressed by the fact that many of the old rituals refer to paraphernalia which no longer exists." In the central circle of the blanket are two long-bodied, long-tailed, short-legged animals which no doubt were intended to represent otters. They have been given a prominent place in the embroidery, and are encircled near the outer edge by what may have been intended to represent members of the Otter Society. From the information afforded by Mr. Beard and Mr. Parker, we may have in these two specimens a part of the ceremonial paraphernalia of the Seneca that was believed no longer to exist.

WILLIAM C. ORCHARD

WESTERN EXTENSION OF EARLY PUEBLO CULTURE

IT has been known for some time that the remote ancestors of our present Pueblo tribes, at a very early period when their characteristic culture was beginning to take form, were widely distributed over a vast territory, many times larger than their domain when first visited by the Spanish explorers in the sixteenth century. The map presented by Dr. A. V. Kidder in his Introduction to the Study of Southwestern Archaeology (1924), which embodies the latest knowledge of the subject, shows these ancient people spread out over large portions of New Mexico, Arizona, and Utah, occupying as well a small part of southern Colorado, and a little slice of Nevada embracing the Muddy and Virgin River valleys. Little was known of this Nevada occupancy, however, beyond the fact that pottery fragments of Pueblo type had been occasionally seen along these streams, until the discovery of Pueblo Grande de Nevada, near St. Thomas, shed new light on the subject.

The finding of this veritable city of early Pueblo dwellings and its excavation by a Museum expedition under the writer's direction, furnished the opportunity, as well as a base of operations, for

several little exploring trips into the surrounding country, the results of which are worth recording in that they indicate an extension of the early Pueblo domain farther west and northwest than is shown on Kidder's map or by any record thus far seen by the writer.

These excursions soon revealed the fact that Puebloan pit-dwellings and adobe ruins are scattered along the entire length of Muddy river from its junction with the Virgin to its source some miles above the Moapa Paiute reservation, and dotted along the Virgin river from the Colorado back upstream to the State line, and doubtless beyond.

The oldest type of house in this region seems to be the pit-dwelling, with which are usually associated fragments of plain and corrugated Pueblo pots and jars, with a few pieces of gray bowls on which geometric designs have been drawn in black directly on the surface of the clay composing the bowl, without the application of a white slip. All these types of ware are associated with the apparently later adobe ruins, with the addition of bowl-fragments bearing designs in black over a white slip, and pieces of bowls and jars of solid red with decoration in black.

Sometimes seen on the surface of pueblo sites, but usually on camp-sites showing no trace of

dwellings of any kind, is still another sort of pottery—dark-brown or black in color, coarse, granular, and rather soft in texture, and irregular as to thickness and surface. When decorated at all it bears merely lines of finger-nail impressions, and many of the vessels seem to have been conical in form, with pointed bottoms—very different from most Pueblo ware. This pottery we have been able to identify as of Paiute origin, and we learned from the Indians that such vessels were manufactured by the Moapa band as late as 1890.

Searching for traces of Pueblo culture outside of the Muddy and Virgin valleys, we found characteristic pottery of all types, except the black-onred, near Las Vegas, sixty-odd miles southwest of St. Thomas; while at Indian Springs, about fifty miles northwest of Las Vegas and seventy-five miles west of St. Thomas, most of the Pueblo varieties have been picked up. This is the western-most point at which we found traces of Pueblo culture—only fifty miles from the California line, and but little farther from Death valley. Our examination of favorable places farther west, so far as they went, revealed a little pottery, but this was of Paiute, not Pueblo, type.

Up to the present writing we have not conducted explorations south of Las Vegas, but it is quite

likely that such would reveal Pueblo traces nearly to the California line, if not in California itself.

Proceeding northward from St. Thomas we find Pueblo pottery reported from at least one place on the Meadow Valley wash between Moapa and Caliente, and continuing still farther north we have similar reports from the vicinity of Pioche, including one find at Rose Valley, near the Utah line.

In the spring of 1925, at the request of Governor Scrugham, we made a trip to Baker, Nevada, about 175 miles north of St. Thomas in a direct line, to visit some caves. We had no expectation whatever of seeing anything of a Pueblo character north of Pioche, so we were astonished when shown typical Pueblo corrugated and plain pottery found in a rockshelter at Garrison, near Baker; and at the Bishop ranch, twenty-five or thirty miles north of Baker, pieces of a characteristic early Pueblo pitcher with a handle and various plain fragments of pottery, all dug up in cleaning out a large spring on the ranch. Mr. Bishop also reported what he took to be a ruin in the neighborhood.

Later, while exploring a cave near the mouth of Smith Creek cañon, only a few miles from the Bishop ranch, several pieces of black-on-gray Pueblo ware appeared, together with some corn-

cobs preserved by the dryness of the cave. This was the farthest point northwest at which we actually saw Pueblo pottery, although an Indian reported finding some fragments twenty or thirty miles still farther north.

It should be noted here too that the corn-cobs mark an extension of aboriginal agriculture farther northwest than anything hitherto reported, so far as the writer knows.

How much farther Pueblo culture, or the beginnings of it, may extend, additional work alone can determine. Certain it is that in the few days we were able to give to reconnoissance, we added to the known domain of the early Pueblos a strip of Nevada about 250 miles long from north to south and about eighty miles wide from east to west at the widest point, traced the people to within fifty miles of the California line, and established a new northwestern limit for the cultivation of corn in ancient North America.

M. R. Harrington

CAYUGA ADOPTION CUSTOM

During a recent visit to the Cayuga Indians at Sweigaⁿ, Grand River reserve, Ontario, the writer saw an exceptionally small pair of girl's leggings, and on making inquiry in regard to

them, learned that the Cayuga still retain an interesting ancient custom of adopting a child not an orphan.

When parents who had suffered the loss by death of a beloved child, actuated also in some cases to carry out unfulfilled vows, and had sought and found one of the same clan and sex, and of similar age and general appearance as the deceased, they signified their wish to the parents of the child on whom their choice had fallen, that they be permitted to adopt it. Having obtained the parental consent, which usually was granted, the bereaved couple made an old-time feast consisting of corn foods (suggestive of good fortune and fertility), and gave assurances of good-will and gratitude, confirming the sincerity of their words by the burning of sacred tobacco. In former days a strand of white wampum was also given.

Then the adopting couple provided a complete outfit of clothing for the elected child, completely dressing it in the new finery, adorning it with ornaments of various kinds. Moccasins invariably were used to encase the feet of the child, a custom suggestive of the Indian antiquity of this ceremony and also expressive of the foster parents' prayer that ease and lightness of travel be granted in days to come.

Though they did not actually adopt the child in a physical sense, that is, by taking it into their own home, yet by reason of their solemnly expressed wish and signal bestowal of their love and affection, the foster parents henceforth considered the child as though their very own, calling it "our child," and addressing its true parents as "our brother and sister." They thus entered as close members into a family relationship, not only by reason of clan consanguinity, but by voluntary choice and desire, the pledged bond of which was their mutual love for the child thus at least nominally adopted.

The leggings used on the occasion referred to were obtained for the Museum.

Joseph Keppler

BUFFALO-SKULL FROM THE ARIKARA

THE MUSEUM has recently acquired an interesting ethnological object collected by the writer from the Arikara tribe on the upper Missouri river in North Dakota. This object is a buffaloskull which formerly belonged to an Arikara subchief named Soldier.

Soldier had possessed this buffalo-skull for many years before his death. It was used as a religious symbol, and was kept upon the roof of the owner's house, overlooking the entrance, at all times except on occasions of religious festivals celebrated in the holy lodge. On such occasions this buffaloskull was carried to the holy lodge and given a place of honor as an invocation for the presence and assistance of the spirit of the buffalo in the ceremonies in which Soldier was a participant.

In the Arikara conception of the universe the four quarters of the horizon are consecrated to four elements, four guardians under God. Thus the southeast quarter is consecrated to the Sunrise, the southwest quarter to the Thunder, which implies water, necessary element of all life; the northwest quarter is consecrated to the Wind, all movements of air; and the northeast quarter is consecrated to Night. Each of the four quarters also bears a second significance, and in this second grouping of powers or elements the southwest quarter is dedicated to the guardian spirit or genius of the buffalo. In what may be called the Arikara Book of Genesis this dedication was said to be in recognition of the divine promise through Mother Corn, the mediator, that the buffalo should be the principal gift from the animal people to humanity for our sustenance and support.

Sometimes a man would place a buffalo-skull upon the prairie as an invocation for the special

care and guardianship of the buffalo spirit and for other special favors. In such cases the skull was placed with a southern aspect upon the brow of a hill so to express the thought of watch and ward through the whole day, from the rising of the sun to its setting. The petitioner would there make offerings and prayers and sing songs of



Fig. 25.—Buffalo-skull and pipe from the Arikara. (14/5014, 5105)

devotion. The rags wrapped round the horns of the present specimen are remnants of offerings which have thus been made during the years it was in use by Soldier.

When the buffalo-skull was placed on the roof of a dwelling it was set just over the doorway

with an eastern aspect, for in Arikara housebuilding the doorway was oriented to the east. Placing the buffalo-skull thus over the doorway was an invocation that the genius of the buffalo might watch and guard all the outgoings and the incomings of the members of that household.

When Soldier felt the approach of death he sent for a serious-minded young man in whom he had confidence, and said to him: "I shall die today. For that reason I wish you to remove from over the door of my house the buffalo-skull which is there. I wish you to carry it out and set it upon a hill on the prairie and there make an offering before it of this pipe and tobacco, and leave it there with God."

So the young man did as he was requested. He carried the skull out upon the prairie and set it down, facing toward the south, on the brow of a hill where never a plow had broken the virgin sod. Then he filled the pipe with tobacco and set it upon the ground with the mouthpiece toward the nose of the skull. And there it was abandoned to the sun, wind, dew and rains, and frost and snow. There it remained for a year or more, when the young man who had placed it there related the circumstance to the writer and invited him to take it up and preserve it as a relic. So he took the writer to the spot and

showed him the skull and the pipe, and instructed him in what manner to take them up. So they were taken up and put away, and now at last they have been brought to the Museum.

MELVIN R. GILMORE

NICOYAN INCENSE BURNER

THE MUSEUM collections, through the generosity of Mr. Harmon W. Hendricks, have recently been enriched by the acquisition of an elaborate example of ceramic art from the Peninsula of Nicova in northwestern Costa Rica. The specimen in question is the upper part of an incense burner of a class to which the writer has assigned the name "modeled alligator ware," in deference to the usual decorative motives. The chief feature of this and of similar vessels is a large figure of an alligator surmounting the cover. the present instance the alligator is depicted with more realism than usual, especially in the treatment of the body and legs. The head, however, especially the jaws, is represented with but little regard for the natural form, except that the long pouch-like throat of the alligator is retained. On the body and on the band surmounting the cover

¹ Pottery of Costa Rica and Nicaragua, Contributions from the Museum of the American Indian, Heye Foundation, vol. VIII (in press).

are open panels partially filled by guilloches, which suggest the treatment of the teeth. In the polychrome pottery of the Nicoya peninsula



Fig. 26.—Cover of incense burner, Nicoya peninsula, Costa Rica, Height, 8.5 in. (14/2435)

similar painted patterns are derived from conventionalized aspects of the alligator. The openings are placed on the upper part of the cover in order to allow the escape of the smoke of burning incense, which also issues from the mouth. On the cover itself is a series of projecting spikes which repeat the scale motive seen on the modeled figure above. Of the original finish of plaster-like white paint only slight traces are preserved.

Pottery vessels of this type are not common. They are found in the northern part of the Province of Guanacaste in western Costa Rica and in the adjacent portions of Nicaragua. From the fact that on one specimen of this ware1 the alligator figure has been replaced by that of a shark, portrayed in a manner peculiar to late Maya art, we judge that the group as a whole was manufactured not long before the Spanish conquest. The provenience indicates that modeled alligator ware was the handiwork of the Orotina, a Chorotegan tribe formerly occupying most of the Province of Guanacaste, or of the Nicarao, one of the Nahuatl groups which entered southern Central America at the beginning of the fifteenth century.

S. K. LOTHROP

¹ Ibid., fig. 142.

PEACE-PIPE OF THE PRAIRIE CREE

The use of the calumet, sometimes called "peace pipe" and "war-pipe," was widespread among the Indians of northern America, and was one of their most sacred possessions. It was employed as a kind of passport by emissaries bearing important messages from tribe to tribe; in ceremonies it was used to conciliate hostile nations and to conclude peace, and was employed on many other occasions.

Several years ago it was reported that only two "peace-making pipes" remained among the Cree Indians of Canada,¹ but their place of keeping seems not to have been known at the time. Last summer while engaged in ethnological work in Saskatchewan, the writer had the good fortune to locate and to obtain for the Museum one of these calumets from the Prairie Cree. It was found in the Touchwood hills on the Gordon Indian reserve, in the possession of Makistukwam, wife of Atos, who had been its keeper and who recently had died. It was a fortunate circumstance that the writer chanced to be in the region, as arrangements had been made by the old woman, who feared the calumet bundle, to "return" it

¹Alanson Skinner, Political Organization, Cults and Ceremonies of the Plains Cree, Anthr. Papers Amer. Mus. Nat. Hist., vol., x1, 1914, pt. v1, p. 537.

to Manito and the powers responsible for its creation. This would have been done by carrying the pipe-stem bundle far into the bush and saying the appropriate prayer for the transfer, after which it would have been left on the ground to decay. Before it was possible to do this, however, it would have been necessary for Makistukwam to gain authority from four old men of a certain se-



Fig. 27.—Sacred peace-pipe bundle of the Cree. (14/3170)

cret society, and it was while she was traveling from one reserve to another in an effort to obtain this permission that the writer heard of the calumet. After following Makistukwam for days, she was ultimately found on the Gordon reserve, as mentioned, and was persuaded to place the precious *askushshi*, or "pipe-stem of peace," in the custody of the Museum.

The calumet was found on a tripod in the rear of Makistukwam's tent, carefully wrapped in many layers of cloth, forming a bundle fifty-three inches in length (fig. 27). The roll was

tied in six places with strips of deerskin, and an additional thong, by which the bundle was suspended, was fastened lengthwise to these strips. Before giving up the bundle, Makistukwam purified herself by placing her hands in the smoke of sweetgrass and rubbing them over the body with a downward motion, after which she prayed for about fifteen minutes, holding the bundle in her hands. It was not opened at the time, as no one had the authority to expose its contents, but when unwrapped later it was found to contain the calumet and other objects shown in fig. 28.

The stem, forty inches in length, is made of a green ash sprout; attached to it with sinew thongs are tufts of red horsehair, and the heads of six northern pileated woodpeckers with the mandibles turned back upon the red crests. This symbolizes the suppression of anger, for the red crest of this woodpecker always rises when the bird is angry, and therefore is here held down. When the tribe was at war the sinew was cut and the crests allowed to rise. A similar symbol is used by the Pawnee.¹

The end of the pipe-stem is covered by the head and neck of a loon, in addition to the woodpecker mandibles referred to. The loon's head symbo-

¹ Alice C. Fletcher, The Hako: A Pawnee Ceremony, 22d Rep. Bur. Amer. Ethn., pp. 21-22, Washington, 1904.

Fro. 18.—Peace-pipe stem and its accompaniments, from the Prairie Cree. Length of stem, 40 inches. (14/3170)



[85]

lizes land, water, and sky, where the loon is said to be at home. Near the base of the loon neck are little bunches of downy snow-owl feathers tied to the stem with sinew; these impart to the stem the power of the owl, which sees and hunts at night. Beneath the owl-feathers and likewise attached to the stem are eight eagle-plumes, threaded to form a fan, to which are attached small sticks upon which are woven porcupinequills colored red, blue, and yellow, with native dyes. At both ends of each of the sticks is a tuft of green-dyed horsehair, symbolizing the color of the earth. Accompanying the calumet in the bundle was a weasel-skin, a bird-quill, two braids of sweetgrass (identified by Dr. M. R. Gilmore as Savastana odorata), and a long gut pouch decorated with native-dyed porcupinequills and fringes of deerskin.

It was explained that every morning as far in the past as the oldest man could remember, the bundle was placed on a tripod at the rear of its custodian's tipi. This was done with an invocation, and with the mouthpiece of the calumet directed toward the rising sun. At noon it was turned half-way round: in summer with the mouthpiece toward the north, in winter toward the south. As the sun passed below the horizon, the bundle was removed from the tripod with

another invocation and placed in the tipi, but in no circumstances was it ever allowed to touch the ground. It is said that this calumet was used by the Prairie Cree in making peace with the Bloods, Assiniboin, and Piegan.

Accurate information respecting the calumet ceremony was very difficult to gather by reason of the reticence of informants in regard both to it and to its keeper. It was learned, however, that the stem could be made only by a man who had dreamed the right to do so; but the pipebearers, two or four in number, never three, were selected by the chiefs to serve each a term of four years. These men were usually young, and were the best warriors and the most graceful dancers in the band. Older men were chosen as pipe-bearers only when youths were not available for the reason that dancing played an important part in the ceremonies associated with the pipebearing. It seems also that pipe-bearers usually should not be poor, as they were required to equip themselves with appropriate regalia, such as elaborately decorated deerskin shirts and leggings. Sometimes, however, the necessary paraphernalia was lent to poor but worthy men. The keeper of the calumet was required also to be the best dancer in the band, and was obliged to live in a symbolically painted tipi.

Many important persons avoided the distinction of becoming keeper or bearer, as the office entailed great expense and responsibility.

When traveling, the pipe-stem was always carried by the keeper's favorite wife. If it should have been dropped or otherwise allowed to touch the ground at any time, it was regarded as a very bad omen, necessitating a purification ceremony to avert disaster.

The most important ceremony in which the calumet was used was that of negotiating peace, from which it derived its popular name. After such negotiation with an enemy had been opened by an exchange of gifts of tobacco, the keeper and his bearers gave a feast at which the stem and a newly made bowl were brought forth. After the feast the keeper and his followers set out carrying the bundle. When camp was made, a ceremony was held, during which they prayed to Manito and the four directions to bless their undertaking, touching the bundle with both hands at each supplication.

The enemy's camp was approached from the rear by the pipe-bearers, where emissaries from the camp were met and the bundle offered to them. On acceptance, it was opened by the keeper. A circle of emissaries and bearers was formed, the pipe was filled and lighted, prayers

were said, and the pipe passed in rotation from right to left, first to an enemy, then to a Cree. Each man puffed its smoke four times, once for each direction. Songs were sung and a dance was performed by the bearers. At the conclusion of the rite the contentions that had resulted in hostilities were arbitrated and peace consequently declared.

The askushshi also played a very important part in the "Thirsty dance," sometimes called the "Sun dance," which was a supplication to Manito that he might cause rain to fall and the earth to provide an abundance of fruit and plenty of buffalo.

Donald A. Cadzow

INDIAN CUSTOM OF "CARRYING THE PIPE"

Among various Indian tribes there is practised a custom which I believe has not been described and explained heretofore, namely, the custom spoken of by Indians under the term "carrying the pipe" to a man. It has been the practice to resort to this ceremony for various ends, as that of bringing about reconciliation after estrangement, to overcome a man's reluctance to perform some duty expected of him, to break down an

unreasonable and stubborn opposition, to clear away misunderstandings, to restrain a man from threatened rash and violent actions, to induce or impel a man to fulfill an obligation to which he is averse, or to yield a point in controversy, and for the ending of strife and the making of peace. There are many and diverse occasions for the employment of this means to the end. Ordinarily a man thus approached will not dare, as they say, to "walk over the pipe." He will consider very seriously before refusing the request of one who comes to him "bearing the pipe." The pipe and tobacco have become invested with the property of sacredness from their association in religious ritual as censer and incense, so that their effect is to induce feelings of respect, veneration, and awe, and to dispose the mind to serious thought.

I can speak of this custom from actual knowledge of it as practised in the Arikara tribe, though I understand other tribes also have the institution. I have had occasion myself to perform this rite. At one time I had an agreement with a man of the Arikara tribe, a priest of one of the sacred bundles, to teach me certain parts of the doctrine of the divine gift of corn, in connection with the ceremonies. I performed my part of the agreement in all particulars, but before the man had performed his part he became vexed, not with

me, but with some other persons connected with the affair, and he refused on that account to do as he had agreed. So in this difficult situation I "carried the pipe" to him. I provided myself with a regulation red pipestone (catlinite) pipe with ash-wood stem, together with a quantity of the sacred tobacco (Nicotiana quadrivalvis), which is cultivated by the Arikara, mixed with dried leaves of bearberry (Arctostaphylos uva-ursi), and dried inner bark of red dogwood (Cornus stolonifera). I also took along provisions for a dinner. Taking these materials with me, accompanied by two other men of the tribe and sustained by their moral support, I went to the man's house. I let my companions go in first to tell him that I desired to speak with him. After they had entered and had talked a little while with him, I was invited to come in.

I took the pipe, filled it with the mixture for smoking, and entered the house, carrying the pipe in the prescribed way, that is, with the bowl in my right hand and the stem held horizontal before me with the mouthpiece at the left. So I approached him and laid the pipe on the ground before him as he sat, the bowl at his left hand and the mouthpiece at his right. He gravely regarded the pipe and me, not saying a word for some time. Then he asked me in the way prescribed by cus-

tom, "What is this for?" And in the customary manner I replied, giving the reason and the purpose of the action. He sat silent a while, considering the matter.

Then the more elderly of the two men who accompanied me spoke to exhort and persuade and encourage the priest to go on and fulfill his agreement to impart to me the instructions in connection with a certain sacred bundle which I was seeking and which he had promised, but which he was now reluctant to do. He said:

The Sacred Bundle is the thing which binds the people together. It did so in the ancient time and it does so now. The people have always looked to the keeper of the Sacred Bundle for light and leadership. By its light and under its leadership the people walked in the right way, and they were strong and in good health. In the ancient days the keepers of the Sacred Bundle were zealous in imparting the teachings to those who earnestly sought them, and the people were faithful to the teaching. Then the people were strong and healthy, of good courage and high spirit. And so should it be with us now. Our people should be united and devoted to the good teachings which we have had from Mother Corn from the ancient days. Mother Corn will keep her promise to us forever, if we do our part.

Now you must not, on account of any misunderstanding, allow bitter feelings and resentment to abide in your heart and cause you to walk apart from the people. Our people look to you to fulfill your promise and agreement to teach Pahok the mysteries of Mother Corn as he has asked, since he has made the required offerings according to ancient custom. He has done his part, and he earnestly inquires to know the teachings from Mother Corn. And now you, on your part, must not fail to pass on the teaching which has come down to you in unbroken succession from ancient time. Thus Mother Corn shall

be duly honored.

The priest listened attentively to the exhortation, until it was finished. Then he yet remained silent, meditatively looking down on the ground, gravely considering the matter. Finally he reached out his hand and took up the pipe. He lighted it, and rose and made the usual smoke offerings to the four quarters, to God above and to Mother Earth. Then he passed the pipe to each of us in turn, that all might be drawn into spiritual accord. When the pipe was smoked out, he emptied and cleaned it in the ritualistic manner, and laid it aside.

Then he spoke of the difficulty which had arisen and how it had offended him. Then he said that now he had put all that away from him; he would not allow that to trouble him any more. So he said he was now prepared and willing to fulfill his agreement to instruct me.

I can give another instance of the practical working of this custom in the Arikara tribe. A number of years ago a man whom I knew well had become embittered because of gossip concerning a member of his family. Because of this the man withdrew himself from meeting with the people in community gatherings and would have no part in any public concerns. Many people were grieved at this state of affairs. Some went and talked with him and begged him not to walk

apart from the people. But he felt that he had been too deeply offended, so he refused to join in community affairs and moodily kept to himself. At last certain ones decided to "carry the pipe" to this man in order to set his heart and mind right again with the people and to bring him again into accord and into participation in tribal and neighborhood affairs. So the pipe was brought and placed before him according to custom, in the manner hereinbefore described. But his feeling was so bitter that he was unwilling to accept this peace offering, but disregarding it, he did not lift up the pipe from the ground. He "stepped over the pipe," as the expression is. On his way home from the place where this occurred he fell in a faint and was found unconscious by someone who was passing that way. This person picked him up, revived him to consciousness, and helped him home. But just as he reached home he again fell in a swoon. When he recovered consciousness and was able to rise and go about, he was frightened and subdued. He expressed the wish to set himself right for the insult he had offered to the pipe in refusing to accept it when offered. So he resorted to the priest of a sacred bundle, confessed his fault, and made an offering, and then stood all day before the sacred bundle, fasting and praying and weep-

ing for his fault and vowing to be reconciled to the people. After this he recovered his usual health and spirits, and thereafter again took part in all neighborhood affairs as he had been used to do always before.

MELVIN R. GILMORE

CEREMONIAL SHIELDS OF TAOS

The pueblo of Taos in northern New Mexico has preserved its ancient customs to an unusual degree, largely because it has persistently resisted interference with its esoteric beliefs, which are guarded with great secrecy. For this reason it is not often that ceremonial objects find their way out of tribal keeping, hence the shields herein referred to may be regarded as of unusual ethnologic interest.

According to the information available, until about the year 1855 the Taos Indians held a scalp dance after the return of their warriors from a hostile expedition. This ceremony was conducted on an island formed by the little stream that flows by Taos and divides below the peublo. On the island were two large cottonwood trees, beneath which the dance was held, and their stumps are still standing. This island is regarded as sacred ground.

It seems that the performance of the scalp ceremony was a function of the Sun clan, and, when held, the nine shields to be described were each attached to a pole, the poles being set upright in the ground in the form of a large circle. There are two kinds of shields, as follow:

(1) Five almost identical examples, to which the scalps of women are believed to have been attached, approximate eleven inches in diameter. Each consists of two discs of yucca matting bound to a hoop forming the rim, each disc being covered on one side with tanned deerskin and the pair set face to face in such manner that, bound with an edging of deerskin stitched with a thong of the same material, they form a pocket with an opening of an inch and three-quarters at the upper margin. Thrust into this opening are two slightly flattened or squared sticks, nine to ten inches in length and notched near the outer end. In the notch of each of two of the pairs are remains of fiber cord, while one of another pair has a short deerskin thong by which it is tied to the shield rim. The purpose of these sticks is not known. A deerskin loop was pro-

¹According to the informant; but as Taos does not have a clanship system, possibly the Sun House People, a division of the Day People, one of the six ceremonial groups of the tribe as recorded by Curtis (North American Indian, vol. xvi, in press) is intended.

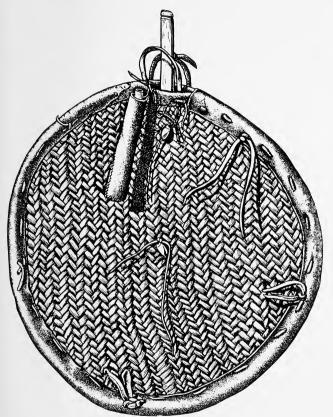


Fig. 29.—Miniature Taos shield. (14/5307)

vided at the small aperture of each shield, evidently for suspension, although the loops have disappeared from three of them. At the rims of three of the five shields are attached other deerskin thongs or their remnants, to which possibly feathers were once fastened. All the shields are painted green, probably some cupreous product such as the Zuñi hold so sacred and which they call ákwahli ("medicine-blue").

In the middle of one shield (fig. 29), attached to what may be called the scalp thong, is an Olivella shell, and a similar shell is tied loosely at the small marginal opening-magic missiles of Pueblo war-chiefs in their mythical strife against sorcerers. This shield is provided with only one notched stick, but, unlike the other shields, there is attached to its rim, at the opening, a deerskin pouch resembling a finger-stall in which fits a tube, three and half inches long, formed of the hollow stem of some plant, while a similar tube is thrust into the pocket between the two faces of another of the shields, as if each of the five had once been provided with one. Possibly another tiny deerskin bag, stained yellow and containing no trace of paint within, may have contained this tube, although the objects were found dissociated.

(2) The other four shields, which are said to have been used in connection with the scalps of men, are of the same size as the others, with the exception of one, which is slightly smaller. Un-

like the "women's" shields, they consist of a single disc of yucca matting bound to a hoop covered with deerskin. Three of the four still retain the central thong. Green paint remains on all, and two still have their suspension thongs.

Accompanying the nine shields, which were contained in a very old bag rudely made of tanned buffalo-skin, are a small deerskin pouch containing fine, dark-red sand, and two small stuffed rings of tanned deerskin, one colored red, the other green like the shields. These rings are said to have been used in the process of stretching the scalps before drying.

F. W. Hodge

CROW SUN-DANCE BUNDLE

The Sun-dance bundle herein described was obtained from Two-Leggings, chief of the River Crows, shortly before his death in April, 1923, at the age of seventy-five to eighty years. Two-Leggings had claimed to have participated in two performances of the Sun dance and to have witnessed it on several other occasions among his people. The following information in regard to this interesting bundle was imparted by him at the time it was procured by the writer.¹

¹The bundle has been generously presented to the Museum by Mr. Wildschut.—*Editor*.

The bundle was acquired by Two-Leggings from Goes-Around-All-The-Time, known also as Sees-The-Living-Bull, by ceremonial transfer or purchase. The right to possess such a bundle was gained by Two-Leggings when, during a period of fasting, he experienced a vision of a Sun-dance effigy. Instead of making one of the bundles himself, however, he procured it in the manner mentioned.

According to Two-Leggings-

The originator of the bundle fasted on the top of a high hill overlooking the camp where a Sun dance was in progress. The man continued fasting after the ceremony was finished and the camp had moved away. On the following day he had a vision in which he saw some people dancing and heard them singing. At first the people appeared as if standing on a distant mountain-peak, but they gradually approached, and finally he saw them in the abandoned Sun-dance lodge below.

Four men and a woman danced. One of the men held his hands in front of his face, palms inward, and was carrying the Sun-dance effigy as represented in the bundle.

Later in the year, Holds-The-Young-Buffalo-Tail, whose brother had been killed by the enemy, approached the dreamer, having heard of his vision, and requested his aid in avenging his broth-



Fig. 30.—Effigy from the Sun-dance bundle. (14/5470) [101]

er's death. Whereupon the originator of the bundle, whose name is forgotten, decided to make the Sun-dance effigy as it appeared to him in his dream. A beautiful sunny day was chosen for this occasion, and a place prepared in the open, within the camp-circle. A fine buffalo-robe was spread on the ground, and everyone was invited to witness the ceremony. The skin of a white-tail deer, finely tanned, was the only hide permitted to be used in making such an effigy. A piece of this skin was cut from the middle of the back.

Then the men who were to sew the Sun-dance effigy (fig. 30) prepared to perform this duty. The sewing was always done by men; no woman was ever permitted to touch the effigy. Moreover, only virtuous men were allowed to do the sewing, and on this occasion the ones chosen were Holds-Back and Young-Curlew. These two, after taking a sweat-bath and further purifying their bodies with the smoke of green pine-needles, seated themselves on the buffalo-robe with three medicine-men on each side. The sewing was done with sinew from the white-tail deer-any other kind was prohibited. Before each stitch was made, four songs were sung. With each song the sewer pretended to commence his stitch, but three times he feinted, and only after the fourth song did he actually make the stitch.

Before the effigy was entirely sewn, it was stuffed with sacred sweetgrass and white-pine needles, mixed with which was the hair taken from the temples and chin of a mountain-sheep and a mule deer, because of the ability of these animals to climb and to run over dangerous places.

The sewing completed, owl-feathers were attached to the head of the effigy. The owl is a sacred bird, for it can see at night, and through its power can aid dancers to see things which are hidden from others.

The effigy was now ready for painting. For this was used a birch twig, the end of which was chewed to make a brush. Again four songs were sung before the painter actually commenced to paint the figure. Sun-dance effigies are not always painted alike, although the materials used in making and stuffing them are supposed to be identical. The character of the painting depends on the vision experienced, and is therefore made to represent the counterpart of the effigy seen in the dream of the faster.

In this case the effigy was painted red and yellow to represent the early morning sky with its varicolored clouds. The red semicircle on its forehead indicates the rainbow, and the two streaks beneath its eyes the marking under the eyes of the screech-owl, symbolizing the sacred powers



Fig. 31.—Deerskin kilt, skunk-skin necklace, and parflèche case from the Crow Sun-dance bundle. (14/5470)

of vision. The broad blue stripe down the body symbolizes the sky, and the smaller stripes radiating therefrom represent, on one side, the wrinkles of old people, insuring for the owner long life and health, and, on the other side, eagle-plumes, symbolic of fog. The black spots around the neck of the effigy represent hail and rain, indicative of sudden storms. In event that the owner found himself at any time pursued by the enemy, he thus was endowed with the power to call forth a sudden storm between himself and his pursuer, thereby retarding the enemy's progress.

After the effigy was entirely finished, the bundle was provided with a kilt to be worn by the dancer. Such kilts were always made from the skin of a male black-tail deer. (Fig. 31)

Included in the bundle is a necklace made of skunk-skin, worn by the dancer in the Sun dance. The skunk is a foolish animal, living mostly under ground, and with its assistance the dancer is made to go mad. The skin is painted with white clay, representing the earth (fig. 31). Owl-feathers are usually attached to the necklace to aid the wearer in seeing objects which are hidden from others.

Finally there are included in the bundle a hair-lock attachment, a whistle made from the wing-bone of an eagle, and a buffalo-hide rattle (fig. 32).

The hair-lock attachment, which symbolizes fog, was worn tied to the hair on the top of the



Fig. 32.—Buffalo-hide rattle, feathered hair-ornament, and eagle-bone whistle, from the Sun-dance bundle. (14/5470)

[106]

whistler's head. It was hoped that fog might surround the enemy when a party of Crow warriors bent on revenge were closing in on them, thereby preventing the Crows from being observed.

The rattle also was painted. The red lines represent the clouds of early dawn; the yellow lines indicate the radiating streaks sent forth by the sun before it appears above the horizon, and both symbolize that sacred period just before sunrise when the most successful medicine dreams were experienced. The face painted on the rattle represents the face of the person who showed the originator of the medicine the Sun-dance effigy in his vision.

When the bundle was not in use its contents were supposed to be covered with a black wrapper, symbolizing night. The whole is encased in a cover of buffalo rawhide painted to represent the mountains, the earth, the sky, and the rainbow.

WILLIAM WILDSCHUT

STONE OBJECTS FROM SAN JOAQUIN VALLEY, CALIFORNIA

THE MUSEUM has acquired a collection from the region of Tulare lake, near Alpaugh, in San Joaquin valley, California, which fills a gap in its archeological collections from that state. The objects number about six hundred, among the

most important of which are about ninety plummet-shape stones. Of this class of artifacts Kroeber¹ says:

The plummet-shaped stone, which is often very symmetrically ground and well polished, and sometimes made of attractively colored or banded rock, is without doubt a ceremonial object. At least, every interpretation obtained from recent Indians is to the effect that stones of this type were amulets or fetishes for luck in hunting and fishing. They may possibly also have been used by rain-making shamans. The fact that traces of asphalt show some of these pieces to have been suspended is, of course, no proof of their having been used as sinkers, true plummets, or weaving weights. In fact, one such charm stone was actually found, only a few years ago, suspended from a string over a fishing place near an Indian settlement in the San Joaquin Valley. Whether these stones, which are most common in central California but are also known from Chumash territory, were originally made as charms, or whether they served some other purposes and were only put to magical use when they were discovered by later generations of natives, it is impossible to decide with certainty; but the positive knowledge as to their recent employment should weigh more heavily in the student's mind than any conjecture, no matter how appealing, as to what their still earlier use may have been.

Illustrations of the finer specimens of this class are presented in figs. 33 and 34. The mottled example in fig. 34 is unusual in that it is decorated with incised lines; but whether it was the intention of the maker to indicate more than this simple embellishment cannot be said, owing to the crudeness of the work.

¹ Handbook of the Indians of California, Bull. 78, Bur. Amer. Ethnol., p. 936, Washington, 1925.

Among other noteworthy examples in the collection are perforated steatite slabs of the kind sometimes designated as heating stones; a number of pestles; some fine stone mortars and bowls; a steatite "hook stone" such as are more com-

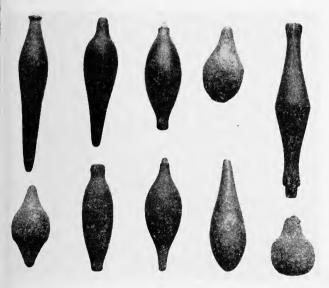


Fig. 33.—Plummet-shape ceremonial stones. Length of the longest, $7\frac{1}{2}$ inches. (14/5722-5782)

monly found on the Channel islands, and a variety of arrow straighteners and grinding stones. Several perforated stones, or so-called digging-stick weights, are in the collection, one of them of a

rather unusual form, being biconical in cross-section and notched around the edge (fig. 34).

Included also is a representative array of shell beads and pendants. While some of the beads are discoidal, and made from clamshell, most of them are fashioned from the sides of the Oliva as



Fig. 34.—Incised plummet-shape ceremonial stone (length, 4 inches) and notched perforated stone. (14/5783, 5807)

well as from entire *Oliva* and *Olivella biplacata*; shells, for which purpose the sharper end was ground off.

There are likewise a number of finely chipped stone knife-blades, arrow- and spear-points, drills, and scrapers, in addition to a series of the class of

knife-blades sometimes referred to as "scarifiers." These implements are of three varieties—crescentic, butterfly-shape, and those with projections. The most striking of these chipped objects is a spear-point of rock crystal, three and one-half inches in length.

GEORGE G. HEYE

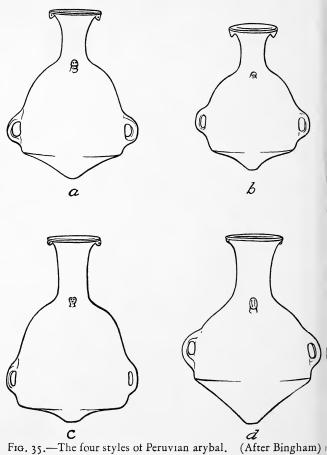
THE POTTERY ARYBAL OF THE INCAS

The most characteristic form of pottery vessels made by the Incas of Peru has been given the name arybal, from aryballus, the Latin form of the Greek name applied to certain classical vessels which the Peruvian receptacles somewhat resemble. In fig. 35 are illustrated the outlines of four "styles" of arybals, after Bingham, who made a study of Inca pottery based on the specimens resulting from the exploration of Machu Picchu.²

In comparatively late pre-Spanish times, owing to the energetic spread of the so-called Inca empire, this type of vessel had a wide distribution through the vast area which came under its influ-

¹ Heye, Certain Artifacts from San Miguel Island, California, *Indian Notes and Monographs*, vol. vII, no. 4, p. 72.

² Hiram Bingham, Types of Machu Picchu Pottery, Amer. Anthr., N.s., vol. 17, fig. 42, April-June, 1915. Bingham's classification, shown in our fig. 35, makes four divisions, denominated by him styles A to D inclusive.



ence during the period of the last cultural "stratification" in Ecuador, Peru, Bolivia, Chile, and

Argentine. This beautifully modeled and graceful form of olla is typical of the Inca and peculiar to that great culture area, its exact counterpart not being found in Middle America. It is characterized by a somewhat conical base, slightly flattened at the point in the larger specimens; a bulbous body with two band-like handles placed rather low down; an animal head just below the neck, which, long and slender, terminates in a graceful flaring rim with two tiny nodes, often perforated, on its under side. The handles were provided for transporting the vessel; the nodes undoubtedly were for the accommodation of cords in securing a wooden cover over the aperture to protect the liquid contents from insects. Most arybals have elaborately painted patterns on one side, but a few entirely plain examples are known. They vary in height from about five inches to nearly three feet, the average size of the majority being between those extremes. The smallest ones are excessively rare, while the largest are hardly less so. In a number of small Peruvian effigy vessels the method of carrying these vessels is represented. In fig. 36 is a vessel from Pachacamac, after Baessler, which shows a seated man with a large arybal on his back.

¹ Arthur Baessler, Ancient Peruvian Art, pl. 154. Baessler states that the spout of the arybal serves as the spout for the whole "huaco."

A stout strap passes through the handles and continues upward and around the small animal head on the arybal to keep the top-heavy vessel in place when carried, for the handles are very low on the body of the receptacle. The carrying-strap passes over the shoulders and across the chest of the



Fig. 36.—Effigy vessel from Pachacamac, Peru, showing method of carrying an arybal. (After Baessler)

bearer, not over the forehead as commonly was the case in former times and even now in many parts of Latin America.

Arybals are commonly reputed to have been either water or chicha containers, although the larger ones could hardly

have served for other than ceremonial purposes. As the largest examples are manifestly too unwieldly to have been carried on the back, they were probably designed for use in temples.

Vessels of this style are found in combination with other forms. In figs. 37–38 are illustrated four examples which have been recently published. These are ceremonial in character and are of great

importance. The interpretation of their function has recently been made by Joyce, who has shown

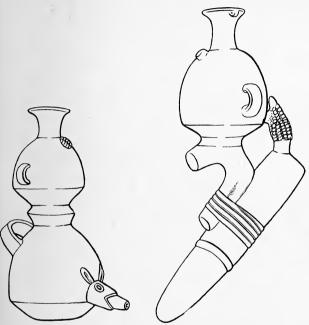


Fig. 37.—Arybals used as libation vessels. (After Joyce)

conclusively that the arybal combined with tubes

¹ T. A. Joyce, The "Paccha" of Ancient Peru, Journ. Roy. Anthr. Inst., vol. L11, London, 1922. The vessels shown in our fig. 37 are taken from Joyce. The specimens are in the British Museum. Fig. 38, showing two analogous specimens, are illustrated without comment by Harcourt in La Céramique Ancienne du Pérou, pl. 63, Paris, 1925.

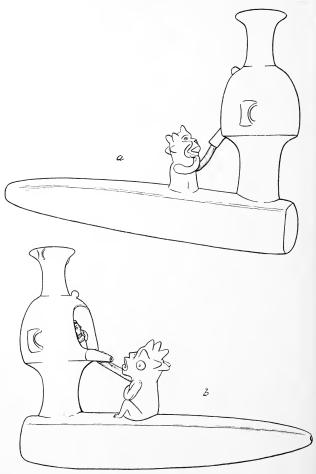


Fig. 38.—Arybals used as libation vessels. (After Harcourt) [116]

and spouts served as a kind of libation vessel for the consumption of chicha during certain Inca religious festivals. The importance of the arybal is thus shown in its connection with these highly original ceremonial vessels herein illustrated. Doubtless some of the gold vessels obtained by the Spanish conquerors in the looting of Cuzco were of the arybal type, but unfortunately all of this treasure soon disappeared by way of the meltingpot.

A number of large arybals are preserved in various museums, notably two in Berlin, about thirty-four inches in height, and one in Paris, half an inch higher. Bingham notes several, nearly three feet in height, found in Machu Picchu. These were the largest known to the writer until the Museum recently acquired, by gift of Mr. Harmon W. Hendricks, a splendid example nearly four feet high. This arybal has an interesting history. It was sold at auction in the Anderson Galleries of New York, having formed part of a collection of objects from a medieval chateau in France, and was catalogued and sold as an "antique Phœnician decorated earthen oil jar."

¹ These Berlin specimens are illustrated by Eduard Seler in Peruanische Alterthümer, pl. 2, Berlin, 1893. ² The Paris specimen is described and illustrated by E. T.

² The Paris specimen is described and illustrated by E. T. Hamy, Galerie américaine du Trocadero, pl. xxxvII, Paris, 1897.

³ Bingham, op. cit., p. 270.



Fig. 39.—Arybal from Peru—the largest example known. Height, about 48 inches. (14/5679)

[811]

As shown in fig. 39, the flaring rim of this vessel is missing, but has been restored in its correct porportion in the illustration. The present height is forty-three inches, but originally it no doubt was within a quarter of an inch of four feet high. The maximum diameter is slightly more than two feet. This example is therefore the largest arybal known, and for this reason forms a notable addition to the Peruvian collections in the Museum.

Owing to the unwieldy character of the great arybals, but few are found intact. In our explorations in the interior of Ecuador a great many examples of arybals of medium size were collected, their relative abundance decreasing as we proceeded northward, and disappearing completely not far north of Quito. Inca influence was traced in this area by the abundance or rarity of the arybals in the culture areas investigated. They were most common in the vicinity of Riobamba and Guaranda in the provinces of Chimborazo and Bolivar, and especially in the neighborhood of Latacunga, province of León, where the ruins of a tambo, or stone structure, erected by the Incas probably during the fifteenth century, may still be seen.

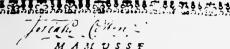
MARSHALL H. SAVILLE

THE JOHN ELIOT INDIAN BIBLE

Two monuments of learning, the results of prodigious industry, stand out in the history of the study of the native languages of America, namely, the Dictionary of the Nahua or Aztec language of Mexico, composed by Fray Alonso de Molina, printed in the City of Mexico in 1555, and the translation of the entire Bible into the Natick dialect of the Algonkian language by Rev. John Eliot, printed at Cambridge, Mass., in 1663. The Mexican dictionary, of excessive rarity, was reprinted in 1571.

The Eliot Bible, also one of the very scarce books of Americana, was revised and reprinted in 1685. Of the first edition of 1663, nineteen copies have been traced, with seven variations in the title-page and other differences that have been noted by Mr. Wilberforce Eames. There was also a printing of the first edition exclusively for the use of the Indians, of which twenty copies have been traced, a total of thirty-nine copies of the first edition that are known to bibliophiles. Mr. Eames writes:

It is probable that the edition was soon exhausted. Many copies were lost or destroyed in the Indian war of 1675-76. As a new edition was much needed, Mr. Eliot began, about the year 1677, to revise the whole work. In the revision he was greatly assisted by the Rev. John Cotton, of Plymouth.



WUNNEETUPAHATAMWE

UP-BIBLUM GOD

NANEESWE

NUKKONE TESTAMENT

WUSKU TESTAMENT

Ne quoshkinnumuk nashpe Wuttinneumoh CHRIST noh ascowesis

FOHN ELIOT.

Nahobioeu ontchetoe Printencomuk.

Q'AMBRIDGE

Printeump naftipe Samuel Green. MDCLXXXV.

Fro. 40.—Reduced facsimile of the title-page of John Eliot's Natick Indian Bible, Cambridge, Mass., 1685, in the Museum of the American Indian, Heye Foundation.

Of this second edition Mr. Eames has described fifty-five copies. When we consider that more than a thousand copies of the first edition and two thousand of the second edition were printed, the few examples which have been preserved indicate the total disappearance of most of the copies of the book.

As the Molina and the Eliot may be said to form the cornerstone of an Indian linguistic library, the Museum is fortunate in coming into possession of a complete and important copy of each, through the generosity of Mr. James B. Ford. The Museum copy of the Eliot Bible is number 27 of the existing copies of the 1685 edition as compiled by Mr. Eames. We copy the account of its history that appears in Pilling's Bibliography of the Algonquian Languages:

(27) Mr. C. F. Gunther, Chicago, Ill. In modern binding of purple morocco. At the top of the first title, which is mounted, is the autograph of an early owner, Josiah Cotton (born 1680, died 1756), for nearly forty years a preacher to the Indians in their own language, and the author of a vocabulary of the Natick dialect. He was a son of the Rev. John Cotton, of Boston, who aided Mr. Eliot in the revision of this edition. The bible afterwards came into the possession of the Rev. Thaddeus Mason Harris (born 1768, died 1842), who was minister of the first Unitarian church in Dorchester from 1793 to 1836. At the sale of his library in Boston, January 26th, 1843, it was purchased by Mr. Edward A. Crowninshield for \$39.00. . . . After Mr. Crowninshield's death in 1859, the bible was catalogued to be sold by auction with his library in Boston, in November, 1859. . . . The auction sale did not take place

in Boston, as the entire collection was bought by Mr. Henry Stevens, and taken by him to London, where the rarest books were withdrawn, and the remainder sold by auction, in July, 1860. The bible was sold, probably at private sale, to the Earl of Crawford and Balcarres. . . . The Earl of Crawford died in 1869. The present Earl, James Ludovic Lindsay, succeeded to the title in the year 1880. At the sale of the first portion of his library in London, June, 1887, the bible was bought for £40 by Mr. Quaritch, who advertised it for sale in August, 1887. It was finally purchased by Mr. Gunther.

At a dispersion of rare Americana, sold at auction by the American Art Association, New York City, January 21, 1926, the Eliot Bible was acquired for the Museum, where it finds a permanent and fitting place in its library, alongside of the copy of the first edition of the Molina Dictionary.

MARSHALL H. SAVILLE

BARK RECORDS OF THE BUNGI MIDÉWIN SOCIETY

ONE of the most interesting secret societies of the Central Algonkian tribes is the Medicine-lodge, or Midéwin. Although various descriptions have been published concerning the ceremonies of this society and their variants among the tribes in which the organization occurs, much is yet to be learned in regard to it.

Last summer, while collecting objects illustrat-

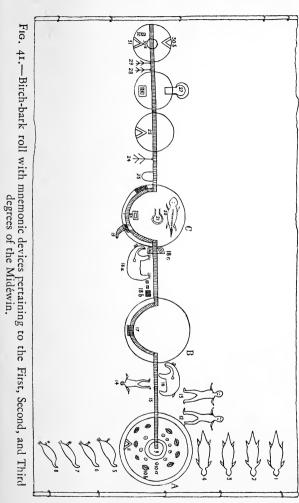
¹ See A. B. Skinner, Medicine Ceremony of the Menomini etc., *Indian Notes and Monographs*, vol. 1v.

ing the ethnology of the Bungi, or Prairie Chippewa, on the Long Plains and Swan Lake reserves in Manitoba, the writer met two members of the fourth or highest degree recognized in the Midéwin by the Bungi. From these men, Kennahmodi (Moose-Bell) and Jim Beatty, were obtained the birch-bark mnemonic records for the four secret degrees of the society.

These sacred barks were given to the writer on condition that they be kept in the Museum forever, and that duplicates of the more important ones be made on durable paper and sent to the society; for the two old *kichimitos*, or past-masters, feared that the originals would become lost, as the Canadian Government has forbidden the performance of the Midéwin ceremony, and the fraternity is slowly becoming extinct.

Some of the bark records collected are referred to as follows by Mr. Skinner in his monograph above cited (page 314):

A few persons, such as the brother of Wapikiniwap of the Cowesess reserve, who resides at Swan Lake, who are members of the fourth degree, have in their possession, or are supposed to have, the "birch-barks" for each rite. These are all believed to have been copied from the original bark records given to the Indians at the first mitiwikomik (or lodge) built by the society. When the original barks were worn out, they were carefully imitated, and so on until today. They are supposed to be identical wherever the medicine-lodge is found, in whatsoever tribe, and any member who sees a birch-bark belonging to his degree should find it instantly intelligible.



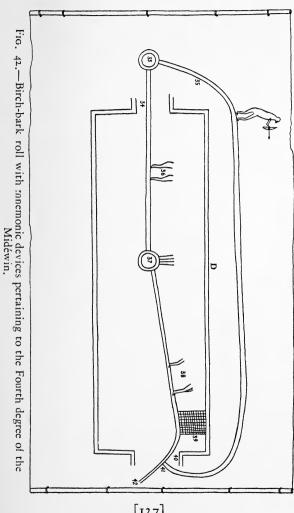
[125]

The roll shown in the accompanying illustrations (figs. 41, 42) is the largest of the nine barks obtained from the Bungi, being $2.8\frac{1}{2}$ inches long by $1.5\frac{1}{4}$ inches wide. This bark was the property of Moose-Bell, who received it from his father, to whom it had passed by a long line of descent from father to son through generations.

In many ways this is the most interesting mnemonic record obtained, as it shows the road followed by a member of the Midéwin from the first through the fourth or final degree. While the specific rites for each degree were obtained on separate bark charts, a description of these would be too long to record here.

Following is a brief interpretation of the large chart as given to the writer by Moose-Bell:

A represents the first degree, B the second, C the third, and D the fourth. The sacred skin medicine-bags of the cardinal points—east, south, west, north—are represented in 1 to 4. No. 5 is the bird of the east and summer, 6 the thunder-bird, 7 the bird of the sun, and 8 the bird of winter: all guardians of the society. The house in which the candidate is born into the fraternity is shown by 9; here he is watched by the bear, founder of the society, who leaves his tracks outside the house (10a). Nine magic shells (10b) are given to the initiates for the purpose of making them fertile.



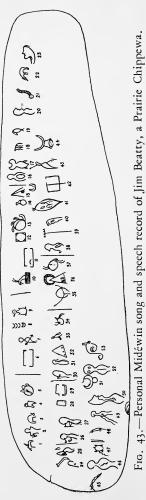
[127]

A tipi (11) is the dwelling of a member. The first man to be given the secrets of the medicinelodge is represented by 12 and the first woman by 13. The spirits of departed members (14) guard the road to higher degrees (15). A bear (16) watches closely the candidates who travel the road, and if they are found worthy, a resting place is reached at 17. Here the secrets of the second degree are revealed to the novices, and they leave on the smooth road toward the third degree. On this road the sacred white bear (18a) walks ahead four steps and makes three resting tents (18b). The entrance to this degree is guarded by the white bear and the rain (18c). A mountain blocks the road of the candidates (19), but if they have clean minds it disappears when they step upon it. At 20 a rest house is reached, and here the secrets of the third degree (C) are given to the worthy ones. Various sacred medicines known only to members of the society are given to the initiate at 21, and the great lizard (22), creator of all water animals, becomes their friend.

Leaving the third degree on the road to the fourth (fig. 42, D), the "stone of the world" (23) becomes a brother of the travelers. A tree (24) helps them along, and also becomes a brother. The candidates rest and meditate at 25; those who think evil, stop and never go farther than the

house represented by 26. Those, however, who have clean minds find a comfortable bed (27) at this house. The male and female trees (28–29) become brother and sister to the travelers. At 30a Manito talks to the Indians as they rest in their tipis (30b, 31), telling them that if they are clean-minded, having only pure thoughts, they will live until their hair is white and then need two sticks with which to walk. Represented by 32 is the house where long ago some evil people made trouble along the road and had to stop forever.

Fig. 42 is a condensed picture of the fourth or final degree, which is inscribed on the reverse side of the same scroll. A detailed account of this degree, which is recorded on another large bark chart, will be described in a subsequent note. At 33 is represented the spot where the road of certain good hunters (35) branches from the true Midéwin road. While these hunters are accepted as full fourth-degree members, they do not receive the rites for the degree. Represented by 36 are the first two steps through life, or middle age. At 37 the candidates rest and pass through the ceremonies of the fourth degree, the four lines radiating from the outer circle showing that the fourth magic shot from the sacred otter is given at this point, when the candidate becomes a full member. The last two steps through life are represented by 38.



At 39 all stop for a final rest and for a talk with Manito, after which they pass through the western door (40), meet the hunter on his road (41), and travel together to Kichichisigong, or "Heaven" (42).

Together with the bark records picturing the ceremonies of the Midéwin, an interesting mnemonic song and talk record was obtained from the Bungi. This bark (fig. 43) measures inches long by 5 inches in maximum width, and upon it is etched the personal Midéwin songs and talks of Jim Beatty, mentioned above as a member of the fourth degree. The numbered devices conveyed to the mind of the user the song or talk to be given, and in some

cases referred to a number of ideas of more or less similar purport. The masters who know all the Midéwin songs often charge a neophyte the value of two horses for teaching a single song. Following is a brief description of the figures as given by Jim Beatty. When two ideas were suggested by a single device, both were recorded.

- 1. The bear is strong and gave the medicine-dance to the Indians.
- 2. (a) I want to see clouds in the sky. (b)

 The Indians thank the bear and hear something in the east.
- 3. The brown bear levels the earth for the dance.
- 4. An underground monster comes to see the Indians and to help.
- 5. A monster of the air helps to level the ground.
- 6. The medicine-house is made.
- 7. Guardian of the door, who carries the bow and arrows. He "shoots" sickness from the members when they come from the house.
- 8. Sun, Star, Moon. The Sun and Moon come last into the lodge. They look after the people and see that they do not make mistakes.
- 9. The turtle comes into the house from underground and makes the doors with his feet.
- 10. A monster snake watches the doors.

- 11. Mide house. Mark in left corner is where an evil spirit grasped an Indian and killed him. This is the reason why the dead always depart through a window.
- 12. The earth, showing the four directions.
- 13. Underground monster.
- 14. Underground monster.
- 15. Tipi of a member, watched over by sun and moon.
- 16. Sacred shell used in ceremonies.
- 17. Skin carried in the hand at ceremonies.
- 18. Poles in medicine-house on which clothing is hung.
- 19. Manito's arm, which gives strength to the Indians.
- 20. Man lost on the road.
- 21. Great snake guarding the door so that evil people cannot enter.
- 22. Earth Mother, who told the Indians how to use roots.
- 23. Father of the upper world.
- 24. Song, lost on the road.
- 25. Song, lost on the road.
- 26. Indian member always has tobacco and food.
- 27. Prosperous man gives the Midéwin.
- 28. Talk about the world so that people will understand.
- 29. Second degree Midéwin lodge.

- 30. Song about having a clean heart.
- 31. Song about having a clean heart.
- 32. You always have a bed if you belong to the society.
- 33. Song about roots and trees.
- 34. Song about sickness.
- 35. Monster in the earth who hears everything.
- 36. Song about tipi-painting and the sky.
- 37. Feathers and birds.
- 38. Song about shells that place strength in body.
- 39. A "misprint" on the bark; nothing was suggested here but a stop.
- 40. Talk; if you do not listen you lose your clothes.
- 41. Talk; if you do not listen you lose your clothes.
- 42. Song about the spirits of the four directions who always hear you when you speak.
- 43. Song about Thunderbird.
- 44. Song about the moon, who looks at you during the night. You cannot hide.
- 45. Song to tell Manito about those who are sick.
- 46. Song about a clean body.
- 47. Song about roots.
- 48. Talk and song about shells.
- 49. Song to heart and mouth to make people have good manners.
- 50. Song admonishing you not to forget what you are told.

- 51. The sun and earth always see you whenever you attempt to hide and do bad things.
- 52. Everything that grows is part of you and is alive.
- 53. Remember your father before you steal.

 Don't waste anything, don't burn trees.

 Talk about foolish girls and boys.

DONALD A. CADZOW

RECENT ACCESSIONS BY GIFT

From Mr. Paul D. Cravath:

Two stone seats. Ecuador.

From Mr. F. S. Dellenbaugh:

Globular pitcher, red ware, traces of black painted decoration. Springdale, Utah.

Rabbit-stick, painted decoration. Hopi pueblo of Walpi, Arizona.

Two photographs of Dupont Cave, near Kanab, Utah.

From Mr. W. G. Argabrite:

Four arrows with palmwood points barbed on two sides; arrow with bone point and reed point protector; arrow with stunning point; bow. Motalone Indians, Lake Maracaibo, Venezuela.

Two arrow foreshafts with metal points; club for killing rabbits. Guajira Indians, Lake Maracaibo, Venezuela.

From Mrs. Thea Heye:

Three wooden hats decorated with painted designs, glass beads, ivory, and walrus whiskers, used in hunting seaotters; wooden eye-shade decorated with painted designs and walrus whiskers. Eskimo, Aleutian islands, Alaska. Pipe-tomahawk, handle decorated with silver band, punc-

tate decoration on head. Iroquois, Canada. Two woven bags with designs woven in with glass beads;

woven bag. La Paz, Bolivia.

Beaded vest for boy; beaded cap for child; pair of beaded leggings. Oglala Sioux, Pine Ridge reservation, South Dakota.

From Middle American Research Department, Tulane University:
Plaster cast of a squeeze of a stucco portrait from a tomb in
Comalcalco, Tabasco, Mexico.

From Mr. Edward Kurtz:

Twelve potsherds. Maryland. Six potsherds. Delaware. Five potsherds. New Jersey.

From Mr. Howard Smolleck, in memory of Alanson B. Skinner:

Chipped implement blank; two hammerstones; crude chipped scraper; net-sinker, fragment of steatite object; three pitted hammerstones; notched hoe; hoe; fragment of notched ax; fragment of tool in course of construction; rectangular grinding stone; crude chipped scraper; two fragments of bannerstones; fragment of slate gorget with one perforation. Staten Island, New York.

Arrowpoint; white quartz implement blank; chipped implement blank; grinding stone; fragment of pestle; fragment of gorget with one perforation. New York City.

Jar representing animal, red ware. Coast of Peru.

Lot of china beads found on skeleton; two hammerstones. New Jersey.

From Mr. Howard Smolleck:

Two crude celts; fragment of arrowpoint; two potsherds. New York City.

Two shell columellæ. Staten Island, N. Y.

From Miss Emily Howland:

Pestle; mortar; gouge; slate gorget with one perforation. Sherwood, Cayuga county, New York.

From Mrs. Alfred L. Riggs:

Two books: Ojibway Testament; Muskokee Gospels, Acts and Epistles.

From Mr. R. Q. Stone:

Double-pointed celt. Williamstown, New York.

From Bergen County Historical Society:

Skull, unearthed in 1900 at Bogota, New Jersey.

From Major Dana Wright:

Seven photographs of Ransom county, North Dakota. Map of Ransom county, North Dakota.

Description of Writing Rock at Fort Ransom, North Dakota.

From Dr. Robert Lehmann-Nitsche:

Sixty-two stone specimens of the paleolithic type. Argentine.

From Mr. William Bridges:

Stone ball. Kaitrrh Hill, near Rio Fuego, Tierra del Fuego, Argentine.

From Mr. Clarence Rosenmeyer:

Twenty-five stone specimens; lead bullet. Rouses Point, New York.

New York. From Mr. C. H. Linn:

Natural concretion showing use as chisel. Hamburg, New Jersey.

From Mr. Howland Pell:

Chipped implement blank; two knife-blades and arrowpoints. Germain Battery, Fort Ticonderoga, New York.

From Mr. Nat E. Booth:

Two stone blades, from cache. Peconic, Long Island, New York.

From Dr. J. J. Izquierdo:

Essay on the Physiology of the Indians of the Valley of Teotihuacan, by Dr. J. J. Izquierdo.

From Dr. S. K. Lothrop:

Woven bag. Winnebago. Doll; beaded bag. Ute. From Dr. Frederick B. Riggs:

Pamphlet: "Translations into the Omaha Language, with Portions of Scripture; also a Few Hymns."

From Mrs. Anna Wolfrom Dove:

Navaho blanket.

Copy of play in three acts entitled "Sacajawea, The Indian Princess," by Anna Wolfrom.

From Lieut. G. T. Émmons, U. S. N., retired:

Stone pipe, incised and red and green painted decoration. Hopi, Arizona.

Photograph.

From Mrs. F. W. Skinner:

Two photographs: Dr. William M. Beauchamp, and Dr. Charles G. Abbott.

From Mr. Earl Hansen:

Wooden bell; lot of mica flakes. Toconce valley, Chile.

From Mrs. Harry Bennett:

Two arrowpoints. Virginia. Two arrowpoints. Teaneck, New Jersey.

From Mr. Howard P. Bullis:

Five chipped implement blanks. South Jamaica, Long Island, New York.

From Mr. W. B. Banks:

Mirror.

From Mr. and Mrs. Dewey Butler:

Fifty-two arrowpoints. Virginia.

From Mrs. Edith Barnard Delano:

Two basket plaques. Hopi pueblo of Walpi. Basket plaque. Hopi pueblo of Oraibi.

Two baskets. Makah.

Four baskets; two basketry covered bottles. Tlingit.

Bead belt; beaded bag. Sioux.

From Mrs. J. Francis Murphy:

Two stone pestles. New York State.

From Mr. Dard Hunter:

Sample of white bark paper; sample of brown bark paper. Otomi Indians, State of Hidalgo, Mexico.

From Misses Bessie and Mazie Berry: Twelve arrowpoints. Virginia.

From Mr. Harry Vacher:

Fragment of notched ax; fragment of celt showing use as hammerstone. South River, New Jersey.

Crude knife used in dressing hides. Hunters Island, New York City.

Chipped implement blank. Green Ridge, Staten Island, New York.

From Mr. C. A. Carey:

Slate gorget; three bell pestles; five celts; two grooved axes; grooved club-head; hammerstone. Illinois.

Oil painting of Wassu-Eadan, a Dakota Indian.

Three publications: Vol. I. Laws and Treaties, Indian Affairs, Washington, 1904. Adventures of the Ojibbeway and Ioway Indians in England, France, and Belgium, by George Catlin. Wisconsin Archeologist, vol. 111, no. 1. From Mr. Alfred David Lenz:

Photograph of a Negro and a Sambo child. Colombia.

From Mr. Frank Wood:

Grooved pestle; grooved ax; grooved gouge, Massachusetts.

Ten arrowpoints. Kingston, Rhode Island.

Jade knife in ivory handle. Eskimo, Point Barrow, Alaska. From Mrs. J. Joseph:

Bow and arrow. Apache.

Pair of model snow-shoes. Eskimo, Kings island, Alaska.

From Rev. Douglas L. Rights:

Forty-seven potsherds; four bone fragments. Yadkin river, North Carolina.

From Dr. Marion Eppley:

Wooden dish, red and black painted decoration; model of kaiak with paddle and spear; basket and cover. Eskimo, St. Michaels, Kuskoquim river, Alaska.

Splint basket and cover, red, green, and yellow painted decoration. Wampanoag, Assonet, Bristol county, Massachusetts.

Box of skeletal remains.

Ten arrowpoints.

From E. P. Dutton & Company:

"Dawn Boy," Blackfoot and Navaho Songs, by Edna Lou Walton.

From Mr. Lyons F. W. Delany:

Two pairs beaded moccasins; quill pin-cushion. Micmac Indians, Nova Scotia,

From Miss Alma Overholt:

Two photographs of a canoe. From Mr. Reginald Pelham Bolton:

Seven fragments of human bones; five potsherds; perforated pottery disc; four arrow- and spear-points. Clinch river, Scott county, Virginia.

From Mrs. John Clapperton Kerr:

Basket. Attu.

Two baskets Haida.

Basket. Makah.

Basket Maidu.

Basket. Pomo. Basket. Thompson River.

Two baskets. Yurok.

Basket. Klikitat.

birch-bark boxes with quilled decoration. Two Chippewa.

From Mrs. Margaret Gilbert: Blanket. Saltillo, Mexico.

Beaded saddle-cloth; beaded blanket strip; shell bead breastplate; seed necklace; glass bead necklace. Sioux. Wooden dish, frog-shape. Alaska.

From Mr. Ernest Schernikow:

Navaho blanket.

From Mrs. Alice Sheldon:

Painted buffalo-robe.

NOTES

Mohawk Manuscript.—The Museum has received, as a gift of Mr. James B. Ford, the following manuscript:

Deserondyon, John. Ro og hya tongh sera. Signed twice, 8 pp., 4°. Lachine, April 9, 1782.

This manuscript of the Mohawk form of condolence for the death of a chief and the installation of his successor, was written by John Deseronto, a chief who founded the Mohawk settlement on the Bay of Quinté, Ontario, in the archaic Iroquois language which had passed down from chief to chief from ancient times; and much of it was so ancient that it baffled four of the most eminent Mohawk scholars to whom it was submitted for translation. It is apparently one of only two examples of native Iroquois manuscripts in existence. Mr. William Kirby, F.R.S.C., in his address delivered before the Royal Society of Canada in 1888, says: "This manuscript of Condolence and the one preserved on the Grand River settlement, Ontario, covering the formation of the Six Nation Indians, were probably written about the same time. The handwriting is the same, though this Condolence is the only one signed. These two pieces are by the best authorities believed to be all the national literature extant of the Iroquois."

Accompanying the manuscript is a signed autographic letter and translation by Abbé Cuoq, of Oka, Quebec, and a translation by Mrs. Hill, granddaughter of the chiefs Joseph Brant and John Deseronto, in the handwriting of the daughter of Mrs. Hill; also signed autographic comments and copies by William Kirby.

A photostat copy has been made from which a translation of this document is now being prepared by Mr. J. N. B. Hewitt of the Bureau of American Ethnology, with a view of its publication by the Museum.

Mandan Collection.—An archeological collection has been obtained for the Museum by Dr. Melvin R. Gilmore from Mr. Lynn W. Sperry, of Bismarck, North Dakota, who gathered the objects on the site of a Mandan village on the east side of the Missouri river, five or six miles above Bismarck. This site is commonly called the Sperry Site because it is on the Sperry farm.

The objects consist of implements and ornaments of bone and stone, and sherds of pottery. Probably the most interesting potsherd is one with a decorative design inlaid with glass beads. The objects of bone comprise hoe-blades, knife-handles, arrow-straighteners, arrowpoints, beads, dice, and a fragment of a bracelet.

Artifacts of stone include arrowpoints, spears, hide-scrapers, gaming pieces, bowl pipes, and one

tubular pipe. Of shell there are beads and pendants, including beads of dentalium shell, which are native on the Pacific coast, thus giving evidence of intertribal commerce over a considerable distance.

The Museum has also purchased an archeological collection which was obtained by excavation near Mobridge, South Dakota, from an old Arikara village-site and which consists of objects of bone, stone, antler, and pottery. There are two complete pots in the collection, one of which has perforated lugs below the rim for attaching a bail, and is decorated with incised design. A catlinite pipe of this collection is ornamented with a carved animal effigy.

METAL ARROWPOINTS.—Referring to the human ulna penetrated by a brass arrowpoint, described by Mr. Skinner in *Indian Notes* for October, 1925 (pages 290-291), Dr. William G. Hinsdale, of Syracuse, New York, has addressed the following interesting communication:

The human ulna penetrated by a brass arrowhead is of interest. On pre-colonial Iroquois sites in Onondaga County, N. Y., the arrowpoints are either conical or triangular, of horn, bone, or stone. The former are antler tips hollowed out, the latter are simple triangles with a straight or curved base. After contact with the whites, the Iroquois changed the material but not the form of their arrows—neatly rolled conical points of brass replaced those of horn. Probably eighty per cent of the points are plain or perforated triangles having a

straight or indented base, rarely convex. With these may be mentioned the "pentagons" and diamond-shape arrowheads. Stemmed or barbed specimens are rare here. The markings on many show that they were made by laying a piece of sheet-brass on a level surface, then, by the aid of an iron knife-blade and hammer, the triangle was detached and afterward finished by rubbing upon stone. Iron knife-blades used this way are not uncommon, and usually show hard usage. When the point was not entirely separated, it was twisted off, and finished as before. Brass arrowheads were used by the coastal Algonkians long before the Iroquois obtained them, yet they occur on comparatively early sites, but more abundantly on those occupied between 1640 and 1696.

A MASSIVE effigy pipe from Maury county, Tennessee, recently acquired by the Museum, is made of close grained sandstone and represents



Fig. 44.—Frog-effigy pipe of stone from Maury county, Tennessee. (14/5682)

a frog with upturned head (fig. 44). An unusual feature of the pipe is that the base, instead of being flat, is hollowed in such a way that it could have been attached to a branch or other object by means of a thong. The pipe weighs 8 pounds,

and is 8 inches long by 7 inches high.

Plans were filed by the Museum in February for the erection of a three-story brick and stone building, sixty by one hundred feet, on the west side of Eastern boulevard between Jarvis street and Middletown road, in the Bronx. This structure, which will be used for storage and exhibition, will form a twelfth part of a proposed building which ultimately is to occupy the large triangular plot given to the Museum by Mr. Archer M. Huntington early in 1924, as announced in Indian Notes for April of that year. Other units, it is planned, will be erected as the future needs of the Museum warrant. Meanwhile the Indian garden, a beginning of which was made last spring, will be developed within the site of the court of the building for the purpose of illustrating some of the products cultivated by the aboriginal tribes, to which the white race owes so much. Excavation for the building was commenced March 18th.

A SPECIMEN recently obtained by the Museum, though not of a rare variety, is interesting on account of the old label that was attached to it. The object is a cylindrical stone, the ends of which show probable used as a pestle, although the specimen itself is carefully finished. One end is perforated to the depth of three-eights of an inch, hence it is possible that it is an unfinished stone tube. It is ten and three-eighths inches

long and one and three-eighths inches in diameter. The old label referred to reads:

This stone was found at Glastenbury, Hartford County, Conn., in 1787. Mr. Pierce found it while plowing on his farm. His daughter, Mrs. Bower, gave it, in 1861, to Mrs. G. W. Avery of Hartford, Conn., and Mrs. Avery gave it to F. S. Perkins, Nov. 28th, 1878."

MR. Hodge addressed the Massachusetts Branch of the Eastern Association on Indian Affairs, on "Arts, Industries, and Ceremonies of the Zuni Indians," at Tremont Temple, Boston, on January 5, and the Brooklyn Institute of Arts and Sciences on February 5, on each occasion illustrating the address with ethnologic motion pictures made for the Museum by the James B. Ford Expedition in the summer of 1923.

MR. Donald A. Cadzow lectured before the Scandinavian Fraternity of America in New York on February 26; to the Thorndike School, Cambridge, Mass., on March 19; at the Cambridge Museum for Children on March 20; and before the Boy Scouts Court of Honor, Orange, N. J., on March 24. The subject of Mr. Cadzow's address was "The Zuñi Indians of New Mexico." Motion pictures made by the James B. Ford Expedition of the Museum were shown.

By the rather roundabout way of London there has been acquired a stone ax with a split wooden handle from the little-known Maxuruna Indians

of the Matto Grosso, Brazil. The finely finished blade has the unusual weight of twelve pounds.

DR. MELVIN R. GILMORE gave a lecture on "American Ethnobotany" before the Science Group of the International Club of Columbia University on March 14, and on March 18 delivered two addresses at the School of Ethical Culture, one on "The Divine Gift of Corn to the Arikara" before the assembly of the high school, and the other on "Arikara Culture" before the grammar school.

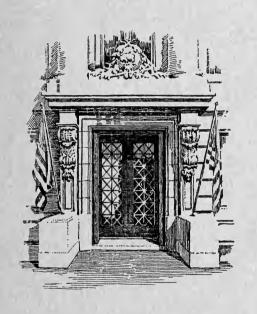
AT THE meeting of the Southwestern branch of the American Association for the Advancement of Science, held at Phoenix, Arizona, in February, a paper on Pueblo Grande de Nevada, by Mr. M. Raymond Harrington, was read.

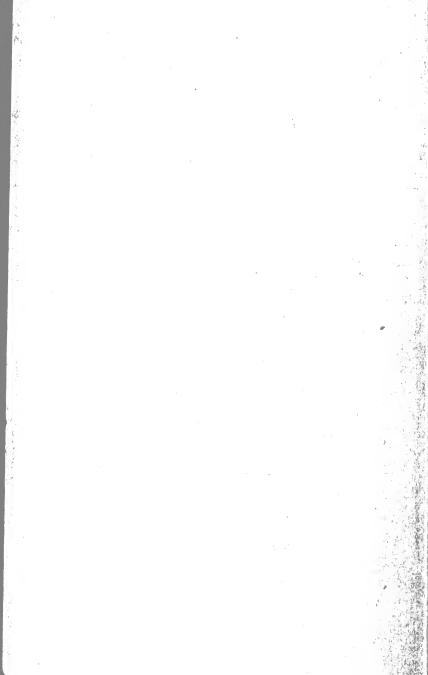
MR. HEYE and Mr. Hodge have been elected Honorary Companions in the Order of Indian Wars of the United States, and Mr. Hodge has been elected also a Fellow of The Historical Society of New Mexico.

Of a collection of small beaded bags from the Yakima and Umatilla Indians of the Columbia River region, recently received by the Museum, many are of buffalo-hide, embroidered in old designs.

A STONE PESTLE of phallic form from Prouts Neck, Cumberland county, Maine, having the unusual length of twenty-six and one half inches, has been added to the Museum collections.

AN OBSIDIAN KNIFE, ten inches in length, found on Santa Catalina island, California, twenty years ago and sent to Scotland, has found its way to the Museum.





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Vol. III

JULY, 1926

No. 3

STONE SCULPTURES FROM THE FINCA AREVALO, GUATEMALA

On the outskirts of the city of Guatemala, southwest of the Guarda Vieja, the road to Mixco and Antigua passes through the ruins of a nameless Indian city covering about two square miles. Although the land has been cultivated for many years, more than one hundred and fifty mounds can be seen, of which the greater part lie within the Finca Arevalo and the Finca Miraflores, two estates separated by the highway. An orderly arrangement of mounds indicates that the ancient city was laid out in parallel streets. Unlike the great historic cities of the Guatemalan highlands—Iximche, Utatlan, and Mixco Viejo—these mounds have a core of earth instead of rubble.

The aboriginal name of this site apparently is lost. As early as 1530 the whole great plain shared

by the Indian ruins and the present capital of Guatemala was known as the Valle de las Vacas, because

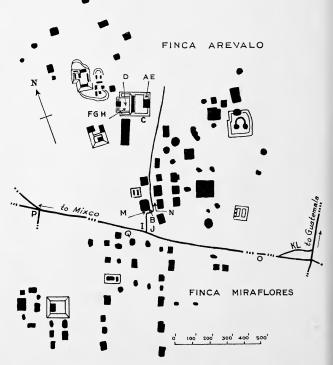


Fig. 45.—Sketch map of the Finca Arevalo ruins. A-Q, Stone sculptures. (After Maudslay)

its owners, the De la Barreda family, imported the first cows seen in the country. Later, his-

torians such as Juarros and Fuentes y Guzman apply the name Las Vacas to the land south and east of Guatemala city (there is today a small municipality known as Los Encuentros or Las Vacas), and speak of the plains west of the city as the Valle de Mixco. In view of this distinction it seems doubtful that Ayampug, the only aboriginal name recorded in the Valle de las Vacas, can properly be ascribed to the ruins. In modern literature the site has been designated the ruins of the Finca Arevalo.

The first stone carvings to be described from this ruin were discovered by Maudslay,² who published a photograph of two stone statues and also a sketch map of the site on which the accompanying fig. 45 is based. In 1916 a visit to the ruins by the writer, accompanied by his wife and Mr. W. H. Holmes, led to the discovery of eight sculptured stones. Subsequent visits by the writer in 1917, 1922, 1924, and 1926, under the auspices of the Peabody Museum of Harvard University and the Museum of the American Indian, Heye Foundation, have resulted in the discovery of others, so that a total of eighteen sculptures, designated by the letters A to R, are now known.

¹ Fuentes y Guzman, Recordacion Florida, book x1, chap. 11.

² Biologia Centrali Americana, vol. 11, p. 38, pls. LXXIV,

These may be classified as five stelæ, two altars, a multiple head, and ten statues. We shall group them however on a stylistic basis. The present location of each carving, with the exception of R, now in the Batres Jáuregui house in Guatemala city, is given in fig. 45.

Artistically the most important group includes two fragmentary stelæ (fig. 46, b, c) and an altar (fig. 47, b, b') carved in the style of the Maya Old Empire. Fig. 46, b, shows a part of a stela now lying near the ranch-house destroyed by the earthquake of 1917, to which it had been carried from a mound on the northeast. The sculpture portrays in profile a human leg, evidently that of a standing male figure. Around the leg is a string of beads suggesting a garter, while behind is an elaborate plumed head-dress reaching below the knees. This presentation of the human figure is well known in Maya art of the Usumacinta-Peten region, dating from the time of the Old Empire. It is most ably depicted in the art of Palenque, but the admirable bas-reliefs of that city do not exhibit the small discs, probably representing jade, attached to the feathers in the example under discussion. Similar discs, however, appear in the reliefs at Naranjo, Seibal, Piedras Negras, Yaxchilan, and other cities of the Old Empire.



Fig. 46.—Sculptures A, B, C, Finca Arevalo, Guatemala [151]

A second stela, characterized like the previous example by carving in high relief and curves of Old Empire style, is illustrated in fig. 46, c. This fragment is too much shattered to afford a clue as to its original appearance. Its provenience is shown in fig. 57.

In fig. 47, b, b', is part of an altar carved in high relief. Originally there must have been two figures, shown in profile, seated cross-legged, and separated by a band of eighteen glyphs in a double column. An altar, discovered by Prof. M. H. Saville and the writer at Copan in 1917, as yet unpublished, has on the upper surface four comparable figures, and others may be seen on stelæ and altars from the Peten ruins. This type is then definitely associated with Old Empire remains, but it persists throughout the entire course of Mayan art down to the inscribing of the codices.

On the left edge of the altar, fig. 47, b, are two numbers written in the Mayan numerical system reading 6 and 9, which are attached to glyphs lying around the corner. A closer view (b') shows that the glyphs are separated by an ornamental band composed of a line flanked by dots. At first glance this element resembles bar-and-dot numerals, but it obviously is not a number because the dots are placed on both sides

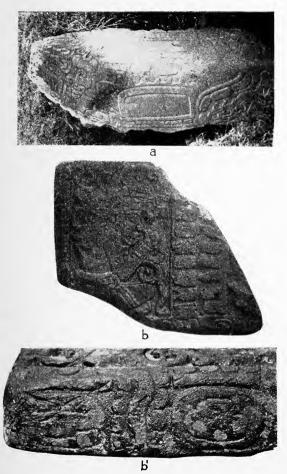


Fig. 47.—Fragments of altars, Finca Arevalo, Guatemala.

a, Sculpture D; b, b', Sculpture E

[153]

of the bar. This inscription clearly is a date, but most unfortunately the glyphs are too much effaced to be read.³ It represents day and month glyphs with their numerical coefficients, or else an Ahau and Tun or Katun date. To the knowledge of the writer this is the only example of Maya writing in stone yet discovered in the central highland region of Guatemala, though inscriptions on polychrome and molded pottery vessels are not unknown.

The three sculptures presented, all carved in high relief, presumably date from the close of the Old Empire, for fragments B and E exhibit subjects well known in the art of that epoch, while the type of dating on E is in harmony. The execution of the carving, however, is distinctly provincial in style, and falls below the high level of the great artistic centers. From an examination of these fragments we are led to the belief that the Maya had made settlements in the highlands of Guatemala, as was also the case in Yucatan, before the abandonment of the cities of the Usumacinta valley and the Peten. A second important indication of the Finca Arevalo group is that the Maya calendar was introduced into the highlands of Guatemala in a form which can

³ Mr. S. G. Morley, who saw this inscription in 1916, was unable to suggest a reading.

be deciphered with our present knowledge of Maya writing,—granted inscriptions not too badly effaced,—so that we may therefore expect excavations and further finds of this kind to furnish not only a sequence but an exact chronology for the complex archeological types of this region.

A second type of stone carving, characterized by low relief and the curvilinear technique of late Maya art, is illustrated in fig. 46, a, fig. 47, a, and fig. 48. The first example is the top of a stela, carved in low relief and badly weathered. From the part of the monument preserved we should judge that an elaborate head-dress is depicted. However, on the left side there apparently is a leg (with the foot in the upper left-hand corner), so it is possible that the subject represented is a manifestation of the Diving god, of whom many examples are seen in the stucco relief at the ruins of Tulum.

Sculpture D, eight feet long and two feet across each sculptured face, as appears in fig. 47, a, is only a fragment from a much larger block of stone. The original monument was probably an altar, for the design is intended to be seen in a horizontal position. The subject represented is a two-headed dragon. Of the two heads that on the left has had the jaw and snout broken away, while the one on the right is partly hidden by the

edge of the excavation. They are joined by a D-shape body fringed with scallops recalling serpent patterns on Luna Ware vessels from Nicaragua. Below the lower edge there probably



Fig. 48.—Fragment R, Finca Miraflores, Guatemala

once were legs, for legs are shown on most representations of this monster. Sculpture D was found buried diagonally in the ground in the west court shown in fig. 57.

Fragment R, seen in fig. 48, together with

another piece representing the upper part of the figure, was discovered while digging a ditch on the Finca Miraflores. One part disappeared overnight, presumably carried away to be worshipped by Indian (Pokoman) workmen. The other portion is now in the Batres Jáuregui house in the City of Guatemala. Like sculpture B it represents the waist and legs of a standing male figure viewed in profile. However, B and R exhibit wide divergence in style. Fragment R is carved in low relief and the legs are bare, thus recalling the art of Santa Lucia Cosumalhualpa, from which this fragment is stylistically distinct. Around the waist is a broad band with elaborate heads set at the front and rear. The head in front is that of god B, generally identified as Kukulcan, the Feathered Serpent. Below this head is a pouch. Behind the legs of the human figure hangs a snake, of which the broad plates of the belly are outlined by a series of scallops.

The right-hand edge of this carving has been not broken but purposely cut away. This technique distinguishes a group of low-relief carvings from which the background has been removed in whole or in part, found at other sites in the highlands of Guatemala. A very beautiful example, now in the Museum, is said to have come from Santa Cruz Quiche. It has been described

by Saville,⁴ who rightly points out approximation to the art of the Dresden codex. The carving delineates a highly conventionalized serpent motive arranged in the form of a cross. It is overlaid with a representation of the serpent deity called god B (fig. 49), drawn in a manner quite similar to the head of god B on fragment R.

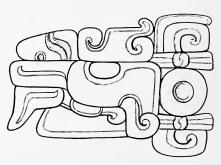


Fig. 49.—Serpent deity on a sculptured stone from Santa Cruz Quiche. (After Saville)

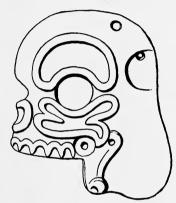
Small objects of stone carved in a style similar to sculptures A, D, and R, are found in southern Guatemala. The example in fig. 50 is one of a group of very thin stone heads, sharp across the top, which are generally believed to be conventionalized celts of ceremonial significance. In

⁴ Mayan Sculpture from Western Guatemala, *Indian Notes*, vol. 1, no. 2, 1924.

several instances they have been discovered, together with stone yokes, accompanying burials.

Another carving, also probably late Mayan but of quite a different style, is the small stela shown in fig. 51, a. It is less than two feet wide. Across the upper part of one face a fish has been

engraved. Although this subject is not common, yet it appears over a wide area in both early and late manifestations of Maya art. Maudslay⁵ has drawn attention to the fact that the fish is usually represented as nibbling a water plant, and he has published a series of such designs Fig. 50.—Stone head, Hacienda (fig. 52). Spinden has illustrated examples



Tasagero, Suchitoto, Salvador. (Length, 9 in.)

from Copan, Palenque, Chajar, Nebaj, Ixkun, and Chichen Itza. An example found by the writer at Paraiso in 1917 is shown in fig. 51, b. Fish are also seen in the Maya codices and the Tulum and Santa Rita frescoes.

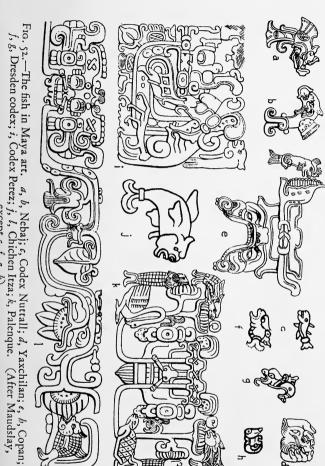
⁵ Op. cit., vol. Iv, pl. xcIII. ⁶ Memoirs of the Peabody Museum, Harvard University, vol. vi, fig. 3.

To the remarks of Maudslay and Spinden on the fish and water-plant motive we would add that,



Fig. 51.—a, Stela N, Finca Arevalo, Guatemala. b, Sculptured trough, Paraiso, Honduras. (Courtesy of Peabody Museum, Harvard University)

except in late examples, it is almost invariably accompanied by some manifestation of death,



either a skull, as in fig. 51, b, or else a head of the Long Nosed god in the aspect of death as in fig. 52, i. In the latter case small crosses, such as appear in the eye of the face variant of the numeral 6, are usually seen somewhere in the design (fig. 52, k, l). These crosses presumably represent two bones, so that the Maya face numeral 6 is therefore the same emblematic device as the piratical Jolly Roger, the skull and cross-bones.

The fish, grasped in the human hand, forms one of the as yet undeciphered Mayan glyphs (fig. 52, d, b). It occurs in inscriptions at Copan (stela 8 and on a slab from temple 11), Quirigua (altar 12 and great dragon), Tikal (lintel of temple A), Chichen Itza (casa colorada), the Maya codices, and doubtless elsewhere. To the fish and hand glyph a Venus sign is sometimes annexed. There is also a glyph in which a hand grasps, instead of a fish, a small cross such as appears with the fish, water-plant, and death's head motive just described. In addition the fish is seen as an element in the initial series introducing glyph of stelæ C and D at Copan. In this connection it has been suggested that the fish, cay, is used as a homophone for twenty, kal.

To return to stela N at the Finca Arevalo, the writer believes that this unusual monument is of comparatively late date because the ring around

the tail does not appear in Old Empire examples but is seen at Chichen Itza and in the Codex Nuttall.

Another distinct type of sculpture from the Finca Arevalo is shown in figs. 53-55. Of these



Fig. 53.—Crude stone statues I and K, Finca Arevalo, Guatemala

F, G, and H are *in situ* at the southern end of the west court shown in fig. 57; I and J stand at the principal entrance to the estate and have been pictured by Maudslay; K and L flank a gateway between the Finca Arevalo and Guatemala city.

⁷ Op. cit., pl. Lxxv, a.

The type is characterized by figures sculptured in the round with fat bodies, thick short necks, usually encircled by a broad collar, and with large heads—the whole very crudely yet vigorously carved. The faces are heavy and coarse, and the features are usually indicated by incised lines. The legs often curve around the base of the barrel-



Fig. 54.—Crude stone statues F, G, H, Finca Arevalo, Guatemala

like body, and are parallel to the ground, while the arms are clasped against the sides with elbows bent.

We class the square block of stone bearing four faces, shown in fig. 55, a, with this group, although more sophisticated than the others, because the features have been cut with the same

technique as on the complete statues. It stands today in front of the ruins of the ranch-house at the Finca Arevalo.

The crude statue shown in fig. 55, b, holds a plate across the front of the body, in a manner recalling the Chac Mool figures of Toltec and

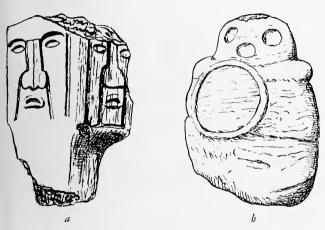


Fig. 55.—Crude stone statues from Finca Arevalo, Guatemala. a, M; b, L. (Courtesy of W. H. Holmes)

Maya art. In fact, in the Finca Arevalo image we may have the prototype of the Chac Mool, although it lacks the characteristic position of the head and legs, as well as the breast ornament, seen in the fully developed type. At the Finca Arevalo another statue (fig. 53, a) exhibits the plate

(well defined in fig. 55, b) reduced to a mere circle. Similar circles or plates held against the abdomen may be seen in the stone sculptures of western Nicaragua, eastern Costa Rica, and in the pottery of northwestern Costa Rica.⁸

Of the other sculptures at the Finca Arevalo, J stands beside the portal and has been figured by Maudslay. It and its companion piece (I) were discovered on the Finca Miraflores in the mound on which the house now stands. They were presented many years ago to General Salvador Arevalo, who broke off the head of one (J) in the belief that it contained a treasure. Statues O and P, both badly battered, stand by the side of the Mixco road. Statue Q, which has been set up in front of the house on the Hacienda Miraflores, is a crude stone column with human features faintly indicated on it. All of these carvings are too much mutilated to serve the purposes of this study.

The writer has elsewhere9 called attention to

⁹ The Stone Statues of Nicaragua, Amer. Anthr., N. s., vol.

xxIII.

⁸ E. G. Squier, Nicaragua; its People, Scenery, Monuments, vol. 1, p. 319. Walter Hough, Censers and Incense Burners of Mexico and Central America, *Proc. U. S. Nat. Museum*, vol. xlii, pl. 3, c. (Other examples from Costa Rica are in the American Museum of Natural History and in the park in Puerto Limón.) S. K. Lothrop, Pottery of Costa Rica and Nicaragua, *Contr. Mus. Amer. Indian*, *Heye Foundation*, vol. vii, pl. cx, a.

the resemblance of the Finca Arevalo group to two statues found at Copan under stelæ 4 and 5, dated respectively 9.17.12.13.0 and 9.14.0.0.0, or Oct. 10, 523, and Feb. 3, 452, A.D. It has been pointed out that the Copan statues are also related to the Tuxtla statuette and to certain Nicaraguan figures of Chorotegan workmanship. Some of the Nicaraguan sculptures also show direct stylistic affinity with the Tuxtla statuette. From this evidence it seems that an early date must be assigned to at least part of the group to which the crude Finca Arevalo statues belong, if not actually to those statues themselves.

Further light on the affinities and age of the Finca Arevalo sculpture is shed by an inspection of the pottery. The writer recently was permitted to inspect the Batres Jáuregui collection, which was obtained on the Finca Miraflores through the excavation incident to agriculture. The chief pottery types in this collection were: 1, "Archaic"; 2, Maya; 3, plumbate ware with late types of design; 4, a dark-brown ware, incised after firing, with shapes in part suggesting southern Central America, and to a lesser degree Toltec pottery from the Valley of Mexico. Types 2, 3, and 4 apparently are contemporaneous with the stone carvings of Mayan style, so that it seems safe to assume that the "Archaic" pottery

(fig. 56) is associated with the crude group of sculptures.

The dating of the "Archaic" remains¹⁰ is one of the chief problems of Middle American archeology. In Mexico this culture, although probably not the first, is the earliest yet discovered, but in a modified form it persisted among such tribes

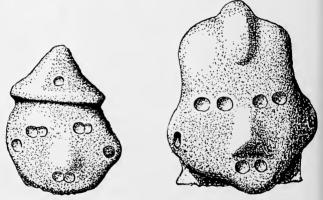


Fig. 56.—Pottery heads of "Archaic" type, Finca Arevalo, Guatemala

as the Tarascans until the coming of the Spaniards. In Salvador the writer recently discovered stratified remains which revealed the same conditions:

¹⁰ The term "Archaic" it most unfortunate because it must be applied to remains which differ greatly in age. The name of the originators of this culture is unknown, and none of the historic tribes can be associated with its early phases.

"Archaic" pottery far under ground and also on the surface mixed with Pipil and possibly European remains. Now, at the Finca Arevalo the "Archaic" pottery is found just under the surface, in fact is brought up in quantity by plowing. However, there is reason to believe, as we shall show presently, that chronologically distinct rubbish at this site is separated not vertically but horizontally; in other words it is not depth but relative position of refuse which furnishes a criterion of age.

To date the Finca Arevalo "Archaic" pottery it is therefore necessary to seek parallelism in the early and late "Archaic" remains of Mexico and Salvador, a subject which will be treated in a subsequent paper. It may be stated here, however, that certain sherds from the Guatemalan ruins are almost identical with early "Archaic" pottery from Mexico and Salvador, thereby indicating that this site was settled in the earliest times to which our knowledge now extends. Thus the weight of evidence is that the crude stone sculptures at the Finca Arevalo ruins are of great age.

Of the carvings here presented no fewer than seven have been found on an acropolis (fig. 57) which stands in the center of the three acropoles shown on Maudslay's map. All these pieces must

have been standing when the city was abandoned, because in each case they had been covered merely by a little soil washed from a higher level. Of these seven carvings F, G, and H belong to the

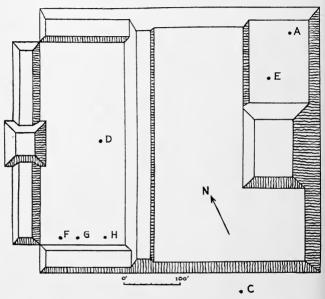


Fig. 57.—Acropolis, showing location of sculptures, Finca Arevalo, Guatemala

crude group, A and C to the early Maya group, and D and E to the late Maya group. As they all seem to have been standing at the same time, it appears that addition and enlargement, rather

than destruction and rebuilding, had taken place. The nature of the monuments suggests that the earliest structure was the western court containing the crude statues F, G, and H. After the occupancy of the city by the Maya at the end of the Old Empire period, a large platform mound was built against the east side of the court, as is indicated by the presence of fragments C and E. In later times Maya builders raised truncated pyramids on opposite sides of the whole construction, placing in front of one an altar (D) and before the other a stela (A). It thus appears that the growth of the acropolis was horizontal rather than vertical, and that chronological determination of pottery and other objects must be worked out on this basis.

The stone carvings at the Finca Arevalo represent three of the four major groups found in the highlands of Guatemala. The remaining type, highly developed at Santa Lucia Cozumalhualpa and elsewhere, is proved by the system of writing and dating employed to be the handiwork of Nahua tribes.

S. K. LOTHROP

PRIMITIVE PUEBLO RUIN IN NORTH-WESTERN ARIZONA

VIRGIN RIVER rises in southwestern Utah, and, flowing generally southward, crosses the northwest corner of Arizona into Nevada, where, after continuing fifty or sixty miles farther, it empties into the Colorado some distance below the mouth of the Grand Cañon.

Here and there along the banks of the Virgin may be found level land suited to agriculture, now cultivated mostly by Mormon ranchers, who draw their irrigation water from the turbid stream. But they were not the first to appreciate the possibilities of the rich bottom-lands along the Virgin, for there are plentiful indications that another race of farmers had been there before them.

These indications were first brought to public notice through the exploration by this Museum of Pueblo Grande de Nevada, near St. Thomas, Nevada, on Muddy river, a branch of the Virgin, an investigation which has established the fact that these ancient agriculturists were Indians of Pueblo type living in this district at a very early period when their characteristic culture was just taking form, a time when they occupied pit-dwellings and simple one-story adobe houses,

although they already made pottery of good quality, wove fine textiles, and subsisted almost entirely on the products of their fields.

While the work of excavation was in progress at Pueblo Grande de Nevada various reports were brought to us of other sites on the main Virgin river, scattered along up the stream from the mouth of the Muddy to the state line, and some of these in Nevada were visited as opportunity offered; finally we crossed the line into the Arizona strip as far as the village of Littlefield, set squarely in the northwest corner of Arizona.

About a mile up the Virgin from Littlefield another stream enters from the west, known as Beaverdam creek, the clear waters of which are in strong contrast to the ever-muddy torrent of the main river. And jutting out from the plateau into the angle formed by the two streams we found a flat-top point with precipitous sides rising about a hundred and twenty-five feet above the water, its summit plateau covering four or five acres. The surface of this is sandy soil, resting on a stratum of limestone; and this limestone rimrock overhangs in places, forming rockshelters. But a short distance down-stream, in the vicinity of the present Littlefield, may be seen good agricultural bottom-land, easily irrigated; and there is a still larger tract even nearer, in the mouth of the Beaverdam wash to the northwest. Water is abundant, not alone in the Virgin and in Beaverdam creek, but in various springs plainly visible from the point. All in all it must have been an ideal spot for an aboriginal stronghold.

With all these favorable conditions we were not astonished when, on looking about the surface of the point, we found it almost covered with the plain signs of ancient habitation. Here were the fire-crackled stones, flint cores and chips, occasional hammerstones and manos or mullers, broken metates or grinding slabs, and on the south end, where the limestone comes to the surface, various mortar-holes pecked into the solid ledge. But most significant and important to us were the numerous pottery fragments, which told us that the ancient dwellers had been a Pueblo people.

And near the northern or up-stream side of the point we found a low ridge covered with stones describing an almost complete circle, about eighty feet in diameter, which is broken only for a short distance on the southeastern side. This, we learned, is locally called an "old fort," but we recognized it as the ruins of an ancient adobe house, with rooms built about a circular court; the stones being accounted for by the fact that it

was customary in this district to mix a few stones, either in regular courses or placed at random, with the adobe in building walls.

We had little time to dig test-holes, but the few tests we made in the ruin revealed the typical adobe floors, etc., such as are found at Pueblo Grande, and that the surrounding ash deposits are at least two or three feet deep, for we dug down that far without finding bottom.

Besides this house, which shows considerable advancement in architecture, there are evidences of pit-dwellings and other isolated buildings scattered about the point, especially near the northern side, some being more or less covered by drifted sand; and the rockshelters beneath the edge of the rimrock yield corn-cobs, bits of arrow-cane, pine-nut cones, and other indications of occupancy.

In the vicinity of these are a few petroglyphs, combining series of drilled holes (the "punctate type" seen near Pueblo Grande) with figures made by combinations of straight grooves. The punctate "writings" seem rather definitely associated with the Puebloan culture in this district, whatever may be said of the other types of petroglyphs.

Looking over the specimens picked up on the surface of the site and dug from the test-holes,

we see a few arrowpoints, hammerstones, manos, and broken metates, but nothing very distinctive.

In the line of pottery we find an abundance of corrugated sherds, fully as numerous as the plain pieces, and including the straight coil, the waved coil, the notched coil, and notched or waved varied by bands of straight coiling. Painted sherds are fairly abundant, and include gray ware with painted patterns in black, some showing narrow and some broad lines; examples of black on white, the white being a distinct slip; also some specimens of black decoration on a red ground. In addition there was one interesting fragment of yellowish ware bearing a design in broad, dark-red lines outlined with thin black lines—the only example of polychrome or three-color ware we have seen in the district.

Taking the pottery as a whole, it resembles very strongly the series found in the northern houseruins of Pueblo Grande, except that the corrugated ware is not quite so well made, and that vessels of white or gray ware decorated on the *outside* seem slightly more numerous in proportion to the bowls decorated on the inside than is the case at Pueblo Grande. The single three-colored sherd may have been an importation, or was simply due to the individual fancy of some local potter, and, probably, is without any great significance in determining relationships.

We can not go far wrong in saying that the people of the old stronghold in the northwestern corner of Arizona were similar to those living in Pueblo Grande de Nevada, and that the place was occupied about the same time: that is, about the end of the Pre-Pueblo period and the beginning of the Early Pueblo period, probably before the cliff-dwellings were built, and long before the great stone communal houses whose ruins still dot some parts of Arizona and New Mexico ever came into being.

M. R. HARRINGTON

THE STONE "COLLARS" OF PORTO RICO

THE peculiar stone "collars" found in considerable numbers in Porto Rico long presented a problem to the student of Antillean antiquities. Many conjectures were made as to their meaning and use, but the question seems to have been definitely solved by Joyce in a recent paper describing some antiquities from the Antilles in the British Museum. Joyce shows that the collars are a translation, from wood to stone, of a type of zemi, or idol, related to the worship of a tree

¹ T. A. Joyce, Prehistoric Antiquities from the Antilles in the British Museum, *Journ. Roy. Anthr. Inst.*, vol. xxxvIII, London, 1907.

spirit that was recognized by the natives of the West Indies at the time of discovery in 1492. In describing an illuminating specimen in the British Museum, Joyce writes: "It is perfectly obvious that these collars were constructed originally of wood; a young tree was selected and cut off

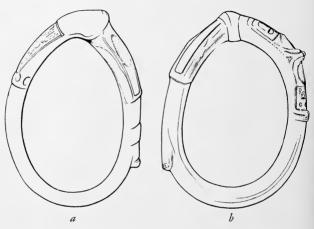


Fig. 58.—A right-shouldered and a left-shouldered collar.
(a, British Museum; b, Museum of the American Indian,
Heye Foundation)

immediately below the fork; the two ends were trimmed into two unequal lengths, the longer bent round so as to overlap the shorter, and the two fastened together by a band of cotton." The specimen in the British Museum, however, represents not lashing, but hooking, and Joyce con-

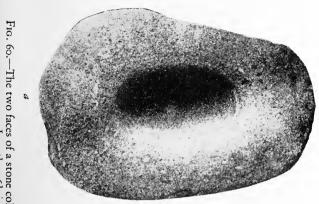
tinues, "When the limbs of the fork were trimmed, the stump of a small subsidiary branch, growing in a convenient position towards the end of each, was left projecting, the longer limb was bent round, and the projection towards its termination was hooked round the projection on the lower limb; the addition of a cotton bandage would hide the joint and make it secure." As no specimens of wooden collars are known from the Antilles, while other artifacts of wood, such as duhos (seats), etc., have been preserved, it seems evident that wooden idols of the "collar" type had long been replaced by their counterparts in stone.

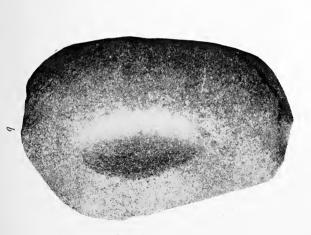
Specimens of zemis of collar shape, heretofore discovered in Porto Rico, may be divided into two distinct classes, namely, slender oblique ovate or pear-shape, and massive oval. All of the slender collars exhibit to a greater or lesser degree the features showing clearly their development from the wooden prototype, and many are elaborately decorated. In many of the massive examples the wooden prototype features are almost entirely absent, or, as in some instances, exist in rudimentary form. Objects of both classes of this type may generally be subdivided into two groups, right-shouldered and left-shouldered (fig. 58).



Fig. 59.—First process in shaping a stone collar. Length, $17\frac{3}{4}$ in.; weight, $61\frac{1}{2}$ lbs. (14/6290)

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Fig. 60.—The two faces of a stone collar in process of manufacture—the secondary stage.

Length, 26½ in.; weight, 187½ lbs. (14/6288)



Fig. 61.—A later stage in the manufacture of a stone collar, showing the depression in each side and secondary pecking to effect enlargement. Length, 20½ in.; weight, 138 lbs. (14/6289)

These stone-collar *zemis* are believed to be closely associated with another type of idols, the so-called elbow-stones. In treating of this class



Fig. 62.—A specimen showing the beginning of the collar opening. Length, 19¼ in.; weight, 90 lbs. (14/6293)

of objects Dr. Fewkes calls attention to the richness of the Museum in this respect. He writes: "Elbow-stones resemble, in general form, fragments of broken collars," and he conjectures that



Fig. 63.—Examples showing further progress in stone-collar shaping. a, length, 24 in.; weight, 127 lbs. (14/6291). b, length, 19 in.; weight, 65 lbs. (14/6292)

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"stone collars and elbow-stones were used for similar ceremonial purposes. . . . The arms of elbow-stones are interpreted as extensions by which these idols were attached to a foreign body, and are regarded morphologically as rudiments, survivals of more elaborate objects, possibly the same as the shoulders of stone collars. It is believed that the spirit represented by the faces on the elbow-stones is a bark or tree spirit, and that possibly it is the being that caused the manioc, a plant of prime importance to the ancient Antilleans, to germinate and increase. This spirit the Antilleans of Porto Rico and Haiti called Yucayu." One might go further and advance the hypothesis that elbow-stones were intended to represent a spirit kindred to that represented in the collars, and that they were intended to have attached to them a piece of wood bent to give the idol practically the same shape as the collar.

Still another type of artifact is apparently to be associated with the stone collars, namely, the three-pointed stones, as to the origin and meaning of which there has been much discussion. De

² J. Walter Fewkes, Porto Rican Elbow-stones in the Heye Museum, with Discussion of Similar Objects Elsewhere, Amer. Anthr., N. s., vol. xv, no. 3, July-Sept., 1913, reprinted as Contr. from the Heye Museum [Museum of the American Indian, Heye Foundation], no. 4.

Hostos has presented cogent reasons for interpreting these zemis as the embodiment of a foodplant spirit, suggesting that their form was derived from an attempt to copy the shape of the matured edible tuber of the yautia plant. This is in consonance with the new interpretation of the significance of the collars, and we believe that the former mystery of these three distinctive and highly localized types of artifacts has now been dispelled. We are inclined to agree with De Hostos in regarding "the employment of idols in Antillean agriculture as the combined result of three factors: (1) a wish to promote the well-being of slow-growing plants, the yautia's tubers, for instance, not maturing until the twelfth month; (2) wood-craft and plant-life knowledge acquired in the course of the native's routinary activities in the field; (3) his mental subordination to animistic beliefs."3

In his Aborigines of Porto Rico, Dr. Fewkes, in describing stone collars, writes, "While these objects, as a rule, have the collar shape, several are simply stone rings, roughly formed, as if unfinished specimens, and others are simply stones with a round or oval perforation." Dr.

³ Adolfo De Hostos, Three-Pointed Stone Zemi or Idols from the West Indies: An Interpretation, *Amer. Anthr.*, N. s., vol. xxv, pp. 56–71, 1923.

Fewkes does not illustrate any of the unfinished specimens mentioned, but illustrates one example, apparently finished, which shows only the vestiges of the features generally seen in the completed zemi.⁴

The Museum has acquired from Porto Rico a unique series of massive stone objects which undoubtedly represent collars in process of manufacture. They are illustrated in figs. 59 to 63, in the order of the degree of work done on them.

In fig. 59 the stone is $17\frac{3}{4}$ inches high and weighs $61\frac{1}{2}$ pounds, and the work has progressed only far enough to produce a deep, cup-shape depression on one side. The bowlder selected conforms more or less in general outline to the elongate form of what would have been a finished collar. There is also a suggestion, at the base, of the projection or boss characteristic of finished specimens.

Fig. 60 shows the hollowed sides of another example. It is $26\frac{1}{2}$ inches long, and is very massive, weighing $187\frac{1}{2}$ pounds. Rudiments of the boss are seen at the top, and the expansion at the left in a indicates where the shoulder-band was to have been executed.

The next specimen, fig. 61, is less elongate, but

⁴ J. Walter Fewkes, The Aborigines of Porto Rico, 25th Ann. Rep. Bur. Amer. Ethn., p. 159, pl. Lxv, Washington, 1907.

the depression on both sides is deeper than in fig. 60, and a little more work would have resulted in cutting through the stone. In a will be observed secondary pecking to enlarge the diameter of the inner circle of the collar. It is $20\frac{1}{2}$ inches long and weighs 138 pounds.

Fig. 62, which illustrates a specimen $19\frac{1}{4}$ inches high and weighing 90 pounds, exhibits the next stage in shaping a collar, a hole having been made through the large cupped depression on both sides and a prominence having been left for the shoulder.

The last two examples, shown in fig. 63, illustrate the process of manufacture still further advanced and leave no doubt as to the character of the series described as being unfinished collars. Of these, a is 24 inches high and weighs 127 pounds, while b is 19 inches high and weighs 65 pounds.

MARSHALL H. SAVILLE

ARIKARA GENESIS AND ITS TEACHINGS

Told by Four-Rings, an Old Man of the Arikara Tribe, and now Summarized in English

ALL the different kinds and tribes of living beings, including the human race, the various mammals, all kinds of birds, of reptiles, fishes, all things which live and move in the water and upon and in the ground, and all the tribes of flowers and grasses, of trees and shrubs and every kind of plant,—all living things,—were first contained and took substance in the womb of Mother Earth. This closely restricted condition was grievous from the want of illumination and freedom. Little by little there came to all living things an apprehension of the imperfection of their state, and they felt more and more the urge to emerge from their condition of inertia, from darkness and restraint, and to come out into the light, and to attain liberty of movement over the surface of the earth.

At that time of beginnings there were none of the living creatures as we see them now. There was no vegetation; no fishes in the waters, nor any birds or insects in the air, or any animals, or any kind of living creature in the light of the sun on the lap of Mother Earth. All were still concealed beneath her bosom. All things were in embryo. But these living creatures were exerting themselves and making all endeavor, for they had strong aspiration to come up into the light and to attain freedom. So they constantly continued to pray and grope and to do their best to explore and find some way to accomplish the purpose.

All creatures were striving and doing their best, each in its own way; but they met many difficulties and obstacles which were hard to overcome. The mole tried to bore through the ground to the surface, and did succeed in doing so; but as he pushed his face into the light he was blinded by the brightness of the sun coming suddenly upon his sight. He drew back from the dazzling light, and so today the mole still lives just below the surface of the ground. Then the people, that is to say, living creatures of all kinds, began to come forth from the opening of the earth. But then the earth began to close upon them and to hold them in restriction before all had come out, so it is that badgers and gophers and all such animals, and the snakes, still have their dwelling in the ground.

Now the living beings which had come forth on the surface began to move and to travel westward. In their journeying they came to a great water. Here was another difficulty to be overcome. All their powers must be exerted. Those which could fly exercised their powers, and so were able to reach the farther shore. Others tried by some means to open a way through the waters, but before all had overcome the difficulty the waters closed upon part of them, and so we still have the people of the waters, such as the

fishes of all kinds, and all other creatures which live in the water.

Now the free-moving beings which had succeeded in coming through or crossing over the great water, traveled again on their course. After a time they came to a great, dense forest. So here their way was again impeded. Here again, as always before, they prayed and called on all the elements of the universe, and tried their best to open a way to pass through this great forest which seemed impenetrable. And some made their way through this difficulty; but others, as in previous cases, did not win through, and these remained in the woods and still live there. These people are the deer, the moose, bears, porcupines, and all the forest-dwelling kind, large and small.

And then God blessed the people of the human race and showed them still greater favor. To those who sought earnestly with prayer and fasting to know His will he revealed mysteries and gave them power. He gave them a sacred bundle and the pipe to use in prayer, and taught religion and instructed them how to worship, and so we do even to this day. And He gave them roots of many kinds of plants from Mother Earth, that these should be medicines for the healing of wounds and the cure of sickness.

And God blessed all the living creatures on the

earth, the trees and vines and flowers and grasses, all the growing, living things upon the lap of Mother Earth which look up to the Sun; all the animals on the earth and in the waters, and the fowls of the air. He blessed all the plants and animals, and said that they are all friends of human beings, and that we should not mistreat them, but that all creatures have their place in the universe, and should be treated with respect. It was taught that the pipe should be used to offer smoke to all things which God had blessed. And so it has been done from ancient time through all the ages till the present time.

Now here we have an allegory. It is said that there were two creatures, two dogs, which were sleeping when smoke-offerings were made, and they were forgotten. So when they awoke they were grieved and angry because they had been neglected when smoke-offerings had been made to all other creatures. And they said to the people: "You neglected to make smoke-offerings to us. Therefore in punishment for your neglect of us we shall bite you. And yet we will not leave you. We still shall follow you forever." The names of the two dogs were Sickness and Death. "So," they said, "Sickness and Death shall be always among the people." And it is even so with all things in the world,

Our powers increase and then diminish; we arise and go forth in fresh strength, and then we lie down in weariness; we rejoice in health, and then languish in sickness; the sun rises and shines in splendor, and then it declines and is overcome by darkness; the brightness of day is followed by the darkness of night; the moon waxes to fulness and then wanes away; the flowers bloom in the springtime, and are cut down by the frosts of autumn; the wind blows, and again there is calm; water is lifted in vapor and floats in the clouds of the sky above the earth, and again it falls in rain upon the ground; springs rise in the hills, and their waters flow down into the rivers. So changes come to all things; all die and are born anew.

MELVIN R. GILMORE

CHUMASH OBJECTS FROM A CALIFORNIA CAVE

Through the characteristic generosity of Mr. Harmon W. Hendricks, its Vice President, the Museum has come into possession of seven archaic baskets and two haliotis-shell drinking-cups from a cave in the ancient Chumash region of California. In August, 1923, while hunting deer in El Blanco cañon in the Sespe mountains,

northern Ventura county, Mr. W. M. Jordan, of Fillmore, observed a small cave, the mouth of which was almost covered by brush, and on entering he found evidence of early Indian occupancy in the presence of the objects mentioned.

Fig. 64 illustrates two basket trays, one of which is in perfect condition, while a part of the

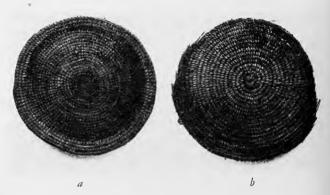


Fig. 64.—Chumash basket trays. Diameter of a, $12\frac{1}{2}$ in. (a, 14/6329; b, 14/6328)

rim of the other is missing, owing probably to gnawing by rodents. These trays are of ordinary coiled technique, with no attempt at decoration, and both are covered on the underside with bitumen.

The two small bowl-shape baskets shown in fig. 65 are finely woven, and are decorated with



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patterns in black in a, and in black with a few strands in light-brown in c. The two shell drinking-cups illustrated in the same figure (b), of



Fig. 66.—Globular storage-basket of the Chumash. Height, 19 in. (14/6323)

the type so often found on the Channel islands of California, have their gills stopped with bitumen. Fig. 66 shows a large, globular, coiled storage-

basket, the bottom of which had been renewed after the application of a coating of bitumen to the remainder of the vessel.

Fig. 67 illustrates a basket of fine weave, decorated in black and in much the same pattern as one of the smaller examples presented in



Fig. 67.—Decorated bowl-shape basket of the Chumash. Height, 11 in. (14/6324)

fig. 65. This specimen also shows repairing of its base, which is covered on the outer side with bitumen.

The most perfect basket of the lot is illustrated

in fig. 68, a fine example of open twine weave made from rushes.

In the many caves in the mountains adjacent to the coast from Santa Monica northward to Santa Barbara there have been occasional finds



Fig. 68.—Chumash basket of twined weave. Height, $7\frac{1}{4}$ in. (14/6327)

of ancient Chumash baskets, but, so far as the writer knows, never before have so many been discovered in a single deposit.

GEORGE G. HEYE

DAKOTA OFFERING STICKS¹

THE Oglala name for one of the sticks herein described is wau'va'pi, which means an offering. Wau"ya" pi consists of a wand, made preferably of the sprout of the wild plum, peeled, and painted or not as the maker designs. If painted, the design and color are emblematic. If colored red, this indicates that the offering is to a supernatural being. Near the top of the wand a bit of anything that is acceptable to the gods is fastened. This may be medicine, tobacco, food, cloth, or hair from a living thing, or colored feathers—this is the offering proper. The waka"la, or immaterial self of the thing offered, is in the offering, no matter how small the material offered is, and this waka"la is acceptable to the Wakaⁿpi, or gods.

Anyone may make an offering of this kind, provided it is done with appropriate ceremony. Such offerings are made usually with reference to the sick. The wicaśa waka" (shaman) or the peźuta wicaśa (medical healer) usually makes such while treating a patient in order to propitiate his waśicu" (familiar, or fetish), or a chosen god. I have seen thirty-two such offerings on an altar

¹ The information here presented was communicated to Dr. Melvin R. Gilmore by Dr. Walker, Government Physician at Pine Ridge Agency, South Dakota, in 1914.

prepared outside a house where a man was ill. The offering may be placed anywhere, so that the wand is upright with the thing offered fastened near the top. Often the shaman secretly makes

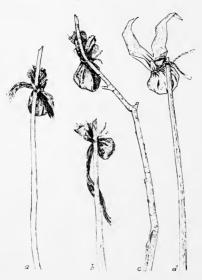


Fig. 69.—Dakota offering sticks. a, length 25 in. (1/3948); b, $17\frac{1}{4}$ in. (1/3399); c, 24 in. (1/3399); d, 20 in. (6/7988)

it in a hidden place, or he may place it on the roof of the house, or anywhere near the house; but the most efficient manner is to prepare an altar with due ceremony and place the offering on it.

The wau ya pi (fig. 69) are much alike in appearance to the invitation wands used in former times by the

Oglala, the difference being that the waw ya pi had the offering attached near the top, while the invitation wand had the top ornamented with paint or quillwork.

JAMES R. WALKER

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MOCCASIN-BUNDLE OF THE CROWS

A VERY interesting and unusual medicine-bundle was obtained from the Crows last winter, but information respecting it was recorded by the writer in October, 1921, when the bundle was first shown to him by Gray-Bull, its last owner, and additional data were procured later from Two-Leggings, the adopted son of the original owner.

The originator of this bundle was Sees-The-Living-Bull, one of the most famous medicinemen of the River Crows, who died in 1896 at the approximate age of ninety-eight years. He had fasted on four occasions for a period of four days each, each time selecting as his fasting-place the top of a high mountain in the Beartooth range, south of the present Red Lodge, Montana.

At the time of his last fast, toward morning of the fifth day, Sees-The-Living-Bull was rewarded with a vision in which he saw the morning star change gradually into a person, who stood on the edge of the horizon. In a little while the person started to walk toward Sees-The-Living-Bull, and after every step a fire appeared in his footprint. Closer and closer came the visionary person, until he stood next to the dreamer, when he spoke as follows:



Fig. 70.—One of the moccasins from Sees-The-Living-Bull's bundle. (14/6472)

'I have come carrying a message from Bird-Going-Up; he is coming to see you."

Sees-The-Living-Bull noticed that the person

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wore peculiar moccasins. On his left foot was one which had fastened to the top the skin taken from the head of a silver fox; on the right foot the corresponding part was made from the head of a coyote. The ears of both animals were left on the skins, and around the outer edge of each moccasin sole were fastened a number of scalplocks with quill wrapping. The heel of the right moccasin (fig. 70) was painted black and that of the left one red.

Suddenly Sees-The-Living-Bull heard a little coyote howling, and on looking around found that the sound issued from the coyote on the man's moccasin. Then he heard a fox barking, and noticed that the noise was emitted from the other moccasin, and as he watched the fox's head bark, flames shot from its mouth. The man standing next to Sees-The-Living-Bull wore a beautiful scalplock shirt, and his deerskin leggings were fringed with horsehair scalplocks of many colors. On his face was painted a broad red circle intersected by two smaller ones of like color.

The visionary man began to sing, and gave Sees-The-Living-Bull the seven songs belonging to the bundle, which are:

^{(1) &}quot;The bird is saying this, and wherever we are, nothing may be in our way."

(2) "The bird is gone; I will let him come and watch over you."

(3) "I am letting him stay, I am letting him stay." (The words of this song were interpreted to mean that the owner of the bundle would live to be an old man.)

- (4) "I am going toward human beings, and they are weak."
- (5) "The bird from heaven has sympathy toward him."
- (6) "Wherever I am going, I say this; I am the bird in this world."
- (7) "My child, I am living among the clouds and there is nothing impossible to me."

After Sees-The-Living-Bull had learned the songs, he was told never to go on the warpath in a westerly direction, as it would result in bad luck to him. In accordance with this admonition he never went toward the Flathead, the Shoshone, or the Arapaho.

These instructions received, Sees-The-Living-Bull suddenly felt a strong wind rising, which caught his blanket and blew it away. He looked after it, and when he again turned his head the vision had ended. He was now wide awake, the sun was shining high in the sky, and he returned to the village.

Soon after Sees-The-Living-Bull made the medicines represented in the bundle, which was always kept outside the tipi, except when taken inside for ceremonial purposes, when it must be carried round the left side of the tipi and out again by the right. The bundle proved especially potent

in locating the enemy and in protecting the owner from injury while on the warpath. During a ceremony Sees-The-Living-Bull always wore the moccasins after first smudging them in the smoke of pine-needles.

WILLIAM WILDSCHUT

AN "IROQUOIS SASH"

The accompanying illustration (fig. 71) represents an article of costume of a kind that has sometimes been referred to as an Iroquois sash. This term, however, is not indicative of the origin of the particular class of weaving by which it is fashioned, nor of the design with which it is embellished. Like the iron or steel tomahawk which became so widely spread among the Northern Indians, the sash was of European introduction. So far as we are able to learn, the early French Canadians were the first to bring into use this style of girdle, which they wore around the waist both to keep their clothing snugly confined during the rigorous northern winters and to afford additional warmth. The Indians adopted the sash and with their customary ingenuity copied it. The popularity of this accessory became so manifest that the white traders provided a cheap machine-made imitation, simi-

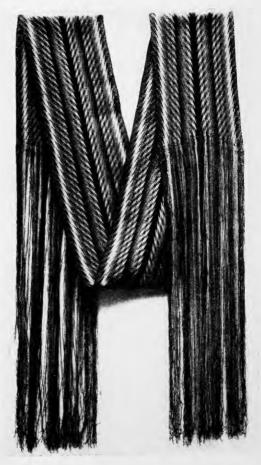


Fig. 71.—"Iroquois sash." Length, 15 ft.; width, 10 in. (14/5102)

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lar in form alone, which ultimately became a standard article of trade throughout the Northern country. The coarser weave of the commercial sash was also copied by the Indians, and in many instances, instead of weaving a pattern in contrasting colors they inserted beads at regular intervals, thus producing a design on a background of solid color.

The sash illustrated is an old one, and of the weave originally introduced. Attention is called to this specimen because of its unusual size and fine state of preservation, and as an example of exquisite workmanship in both weaving and dyeing. The technique of the weave, or, more correctly, braiding, is complicated. Each thread was provided with a bobbin, as in lace-making; these bobbins were passed over and under one another diagonally across the sash and back again. The design was introduced by other threads twining over the crossing elements, but were carried only to the center line of the sash, then turned back toward the edges. This manipulation formed a lengthwise ridge, which might give the impression that the sash was braided in two narrow strips which were afterward joined.

The number of threads used depended entirely on the width of the sash. The smaller sashes,

of about four inches in width, required about one hundred and forty threads, the wider ones a proportionately larger number. The example illustrated, ten inches wide and fifteen feet long, is the largest one brought to our attention. We should hesitate to state how many threads and bobbins were employed to produce it, but that its manufacture required untiring patience and skill in the manipulation of so many bobbins is evident.

The threads are of very tightly spun wool, so closely assembled on the weave that it is almost as hard as a piece of heavy cotton duck. The fringe is composed of the loose ends of the weaving threads, which are brought together in groups of nine or ten strands each, and braided in a three-strand braid for an inch or more which bonds the weave, the remaining threads forming a long fringe.

The colors vary little in this type of sash. Red predominates, while the sharp-pointed zigzag design is produced in two shades of blue, sage green, a rich shade of old gold, and white. What the early French Canadians and the Indians used for dyes has not been recorded; but a modern fabric in which aniline dyes have been used contrasts very unfavorably with the soft shades of the old coloring.

The design suggested arrowpoints, for which reason the sashes have been termed by the French ceintures flèches. For this information and that relating to the use of bobbins we are indebted to Dr. Frank G. Speck.

WILLIAM C. ORCHARD

THE INDIAN GARDEN

Last year the Museum made a beginning in the development of the project to establish an American ethnobotanical garden on the tract of



Fig. 72.—The Indian garden early in the season of 1925. The sweet-gum tree is near the middle of the plot

land given to it by Mr. Archer M. Huntington in the Bronx near Pelham Bay Park. This project was initiated at the suggestion and under the direction of the writer. The coöperation of the National Plant, Flower, and Fruit Guild, and of the Nature and Garden Department of the



Fig. 73.—The Indian garden before the harvest

New York Public Schools, was enlisted. Pupils of Public School 71, The Bronx, which is near the property, were allotted plots in which they grew certain kitchen-garden crops according to the regulations of the School Garden Department of the Board of Education. Besides their

plots of common garden vegetables the children also worked the Museum demonstration plots of cultivated crops which are of Indian origin. In this way they repaid for the privileges accorded them by the Museum and at the same time learned



Fig. 74.—Harvest Home Day: A few of the products of the Indian garden

valuable and interesting lessons in American history and in appreciation of the American race.

This demonstration garden served to arouse enthusiastic interest among the children in things of American origin and did more to develop a spirit of patriotic pride in our country and of loyalty to it than can be aroused by any abstract dogmatic oral or written statements concerning what is called "Americanization." The individual plot allocated to each pupil also served to propagate and foster respect for propertyrights and to generate a feeling of emulation in worthy achievement and a community pride in a coöperative purpose.

For planting of the Museum demonstration plots the writer provided seeds of several varieties of sweet corn, flour corn, flint corn, and popcorn; of beans, squashes and pumpkins, cultivated sunflowers, and tobacco, which he obtained from several different Indian tribes—the Seneca of New York, the Omaha of Nebraska, the Arikara of North Dakota, the Pawnee, who were originally in Nebraska, and the Winnebago, originally in Wisconsin.

The youthful gardeners held a Harvest Home day in October, when they proudly displayed the fruits of their summer's labor on tables arranged under a spreading sweet-gum tree which grows in the garden.

This venture of the Museum was so successful in spite of the handicap of many difficulties and unfavorable conditions last year, and attracted such interest and attention that the idea is spreading, and organizations and communities in various

places are planning to establish similar gardens in connection with their school or park systems or by private undertakings.

In the season of 1926 the Museum is carrying on the Indian garden project on a more extensive scale and with fair prospect of increased success.

MELVIN R. GILMORE

RECENT ACCESSIONS BY GIFT

From Mr. Reginald Pelham Bolton:

Two chipped stone points. Old settlement, Pemaquid, Maine.

From Mrs. Thea Heye:

Basket and cover. Chitimacha, Louisiana.

Eleven pottery toys representing human figures seated on jars, white ware, red and black painted decoration; four seated human figures of pottery holding jars; two pottery toys representing men riding horses. Tesuque, New Mexico.

Gourd, incised decoration. Payaguas Indians, Santa María-de-Fe, Rio Tibicuary, Paraguay.

Basket tray. Pomo, California.

From Dr. F. G. Speck:

Ten handles of pottery vessels; five fragments of loop-handles of pottery vessels; four fragments of base of pottery vessel; twenty-one potsherds; fragment of tomahawk-shape pottery pipe with punctate decoration, some of which has been made with the end of a key; fragment of stone pipe-bowl. Pamunkey reservation, Virginia.

From Mr. Malcolm J. Rogers:

Large flint core. Escondido, California. From Mr. Howard P. Bullis:

Pestle with pits on side; four arrowpoints; fragment of celt. South Jamaica, Long Island, New York.

From Mr. Howard Smolleck:

Potsherd. Inwood, New York City.

Six fragments of arrowpoint and scraper. Fort Washington Park, New York City.

From Mr. Edward F. Weed:

Twenty-one quartz chips. From Mr. Robert S. Cortelyou:

Grooved axe; thirty-four arrowpoints. Griggstown, New Jersev.

From Mr. H. C. Jarvis:

Two grooved axes. Fort Washington Point, New York City.

From Mr. Edward Wenzel:

Fragment of bannerstone.

From Mrs. Wilton Ross:

Fragment of openwork basket. Lovelock Cave, Nevada.

From Lieut. G. T. Emmons, U. S. N.: Wooden dish representing a puffin; powder-horn, carved

decoration. Tlingit, Alaska. From Mrs. Alice L. de Santiago:

Tripointed stone, broken; pottery head. Barceloneta, Porto Rico.

From Town of Southampton, Long Island, New York:

Glass bottle; three trade pipes; clay pipestem; two metal spoons. Shinnecock Hills, Long Island, New York.

From Mr. Daniel Carter Beard:

Four moose-hair moccasin ornaments.

From Mr. T. P. O. Menzies:

Two photographs of rock-carvings in the Lilloet district, , British Columbia.

From Rev. Douglas L. Rights:

Forty potsherds; two bone implements; small shell. North Carolina.

From Mr. Alex Sacks:

Fifteen arrowpoints; two sinkers. Mill Basin, Brooklyn, New York.

From American Geographical Society:

Twenty-nine photographs of ruins of Chanchan, Peru.

From Mr. Denys Nelson:

Photograph.
From Mr. Henry S. Wellcome:

Dugout canoe.
From Mrs. Gertrude Bridgham:

Twelve potsherds; large stone bead; four lots of fused

glass beads; animal bone; fragment of 38-calibre bullet; hammered iron arrowpoint. San Bernardino county, California.

From Mrs. Frederick James Bowlan: Beadwork necklace. Blackfoot.

From Mr. Alexander Peet:

Eight arrowpoints. Oregon.

From Mr. Charles Warren:

Pipe bag. Mandan Sioux.

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NOTES

Dr. Gilmore's Activities.—Dr. Melvin R. Gilmore, of the Museum staff, recently addressed the Fort Greene Chapter of the D. A. R., in Brook lyn, on The Arikara Book of Genesis, and on the opening day of the Avenue A Garden of the New York Branch of the National Plant, Flower, and

Fruit Guild he presented an address on the subject of an Indian garden as a department of Avenue A Garden and a factor in the educational work of the Guild. Dr. Gilmore also addressed the gathering at the opening of the Indian Life Reservation of Inwood Hill Park, New York City, on Indian Day, May 8. Articles by Dr. Gilmore entitled "Preserve the Natural Beauty of America'' and "An Ethnobotanical Garden" have appeared respectively in The National Plant, Flower, and Fruit Guild and The Southern Workman, the latter being an account of the Indian garden of the Museum. Dr. Gilmore has been consulted as an advisor in Indian lore for the "Nature trails" instituted in Palisades Interstate Park by the American Museum of Natural History, conducted by Dr. F. E. Lutz, and also as advisor by a committee from the New York Academy of Medicine respecting an exhibit illustrating Indian medicine and surgery to be installed by the Academy.

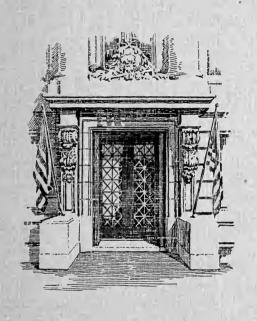
WHILE in Rio de Janeiro in 1924 the Director made arrangements to obtain for the Museum an extensive collection gathered by Mr. Gorbiniano Villaca during a period of fifteen years. This material, which has recently been received, consists of many rare archeological and ethnological

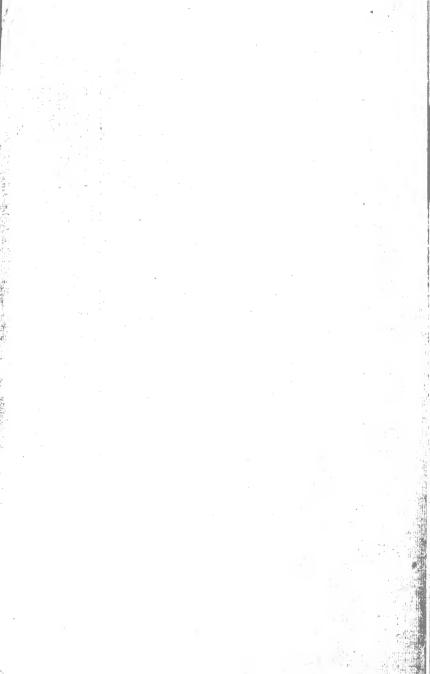
objects from the states of Para, Goyaz, Amazonas, and Santa Catharina, Brazil, and also from British Guiana, Ecuador, French Guiana, and Paraguay. In the collection are such articles as decorated pottery, stone and bone implements, textiles, ornaments and head-dresses of beadwork, feathers, shells, etc., a painted wooden seat, a basketry shield, dolls of gum and pottery, dance paraphernalia, weapons, etc. Many of these are from tribes which had not hitherto been represented by the collections of the Museum.

Attention has been called by Professor John Cameron, of Halifax, to two errors in quotations from his writings incorporated in Dr. Oetteking's Skeletal Remains from Santa Barbara, California, published as Miscellaneous No. 39 of *Indian Notes and Monographs*. The mistakes are:

Page 136, twelfth line, for "merely" read nearly.
Page 139, thirteenth line, change "index" to ramus.

PROF. MARSHALL H. SAVILLE read a paper on "The Cultures of Northwestern South America and Their Relations to Central America" before the American Philosophical Society of Philadelphia on April 24th, and addressed the Alumni Association of the Graduate Schools of Columbia University on "Recent Discoveries in the Field of Mayan Archeology" on May 11th.





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ANOTHER ANCIENT SALT MINE IN NEVADA

It was the report that a mummy having fiber sandals had been discovered, years ago, in a salt cave near the mouth of the Virgin river, that led the writer, then conducting excavations at Pueblo Grande de Nevada, to undertake a ten-day exploration of the lower reaches of that stream in the spring of 1926.

On this trip the writer was accompanied by Mr. Fay Perkins of St. Thomas, who knows the country thoroughly. Besides visiting many ancient camping grounds along the river, some of Pueblo, some of Paiute, and some of unknown origin, and discovering a most interesting Pre-Pueblo site on the Colorado at the very mouth of the Virgin, we found and examined the salt-cave where the mummy was supposed to have been unearthed. This cave, in view of the two caves previously

explored by our expedition, we distinguished as: Salt Cave 3.

It lies on the east side of the Virgin, about a quarter of a mile back from that stream, approximately six miles above its junction with the Colorado, and some twenty miles south of St. Thomas, Clark county, Nevada. The cave is situated in a



Fig. 75.—Virgin valley from Salt Cave 3, Clark county, Nevada

"salt peak" much like the peaks four miles south of St. Thomas in which Salt Caves 1 and 2 are: situated, but this peak is smaller. The top is composed apparently of a mixture of gypsum and clay, the base of solid rock-salt, the cavern having been formed partly in the salt and partly in the layer above.

For years, during the mining activity in this district in the nineties, the salt was mined here by Daniel Bonelli, a noted Mormon pioneer, and hauled by him with teams down to the Colorado river, on which it was transported in boats to the mining camps; and in those days the cave was known as the Virgin Queen Salt Mine. Now it is



Fig. 76.—First visit to Salt Cave 3

owned by Mr. B. F. Bonelli of St. Thomas, the old pioneer's son, who kindly gave us permission to examine it; but it has not been worked for a long time. In fact the whole section of country about the mouth of the Virgin has been abandoned by ranchers and miners alike, and is never visited except by some solitary trapper or prospector, or some lone vaquero looking for stray cattle.

On our arrival we found a portion of one of the old mine buildings still standing, and abundant indications that the front of the cave, including the salt ledge beneath, had once extended twenty or thirty feet farther out than at present, but that this had all been blasted away during the modern mining operations. Doubtless the mummy, if mummy there was, had been found during the course of this work.

Turning our attention to the part of the cave still remaining intact, we found it to measure about 21 feet across the mouth, with a height of about 19 feet from the salt ledge at the bottom to the top of the arched roof. The back part was blocked with masses of fallen rock, shaken down by blasting, but we could see that the cave extends at least 50 feet back into the hill.

But most astonishing to us was the fact that the whole bottom of the cave was filled with a layer of ancient salt-mine refuse 10 feet 10 inches deep. This was amazing to us because the deepest deposit we had found in the previous salt mines explored had been in the neighborhood of only 8 feet, and that over a small space, while here the 11-foot deposit seemed to continue indefinitely.

The cave faces west, and on the north side the ledge of salt rises to form part of the wall, and this when partly laid bare proved to be covered with

the marks of ancient salt mining, somewhat similar to those we had seen in the previous caves, only the circles in this one were less perfect in form. The salt ledge composing the bottom of the cave



Fig. 77.—Mouth of Salt Cave 3

proved to be covered with similar markings, where the ancient miners had picked into the salt with their rude tools, making a groove round and round until a raised lump was left in the center which they could break off and take home.

Time did not permit anything but the most superficial test of this cave, so we decided to dig a trial trench on the south side of the mouth, against the south wall. Because of the fact that this wall overhung, our trench, while only 4 feet wide at the top, was nearly 10 feet wide at the bottom. We succeeded in driving it 11 feet back into the cave before we were obliged to shut down the work, and in learning something concerning the ancients who had labored there. The deposit, like those in the salt caves already explored, was composed of discarded quarried salt varying from dust to large lumps, mixed with fallen fragments from the roof, desert dust, blocks of gypsum, stone hammers and picks, charred sticks, and many small articles left by the ancient people.

Levels where there had been a cave floor at some time were marked in places by beds of arrow-weed, and traces of pits dug down through previous accumulations to get at the salt ledge beneath were abundant. It was interesting to note that while some of the pit-diggers had succeeded in reaching the ledge, others with less persistence had failed and had abandoned their pits, sometimes within a few inches of the goal.

Most abundant of all examples of man's handiwork were the stone picks and hammers, of which no fewer than 418 were found in our few days of

Fig. 78.—Mouth of Salt Cave 3. The man is standing on the eleven-foot deposit of ancient mine refuse



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work. These were chipped out not only from bowlders, but sometimes from fragments of some hard, massive, igneous rock as well. They may be divided into several classes—the single-pointed picks, of which there were 290; the double-pointed picks, with 73; the type chipped to an ax-like edge instead of to a point, with 20; and the simple rounded hammerstone showing battering from use, but no chipping, with 35. Not one of the notched hammerheads such as appeared so abundantly in the other salt mines, used with a wooden handle, was found here, nor any fragment of such a handle. It was plain that the picks and hammers used in this cave had been grasped by the hand.

The only other mining tools were numerous digging-sticks, for the greater part rather thin and flimsy, and showing only the wear of use, without artificial shaping. Doubtless these had been employed in digging the pits in older beds of refuse to get at the salt. Two small spatulas of bone, a wooden spatula, and a wooden pin, could hardly have served as mining tools, although found in the cave. Near the surface were two fragments of cane arrows, one still showing the sinew wrapping intended to hold the feathering, the other retaining part of its hardwood foreshaft.

Representing the clothing of the old miners were



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only a few strings from fur-cloth blankets and one from a feather-cloth blanket; but this latter had not been made by twisting single downy feathers about a string in the usual way, but by wrapping the foundation cord in strips of bird-skin. There were also small fragments of very rude yucca-fiber sandals, and an assortment of loose strings made of yucca-fiber, Indian hemp, some soft animal hair, and of human hair.

Representing their vegetal food was quite a variety of specimens, although corn was represented only by a few cobs found near the surface and an occasional "chew" apparently of green cornhusk. A "chew," by the way, is a mass or cud of vegetal fiber bearing the marks of human teeth—a cud say an inch and a half long and an inch thick. Even today the Paiute cook the fibrous "yant," or mescal, and divide it into mouthfuls which they chew until they have extracted all the sweet pulp, then eject the cud of fiber, as modern Americans throw away their gum when the flavor is gone. These very "chews" of mescal-fiber were abundant at all levels in this salt cave, as in the others; and there were many pieces of immature squash-rind, and a few bits of gourd-shell and of dried yucca fruit. Most abundant of food products in the lower levels were dried cactus fruit, and small whole cacti of the barrel type with the

spines carefully burnt off. Of unknown use were balls of yucca-fiber, often neatly shaped and tied, containing dried leaves of some sort.

Animal foods were indicated by a few scattered bones of rabbits and desert turtles, and by scraps of skin which could be identified as coming from the mountain-sheep or the deer. These foods must have been cooked without the aid of kettles, because in this cave pottery was conspicuous by its absence; and no arrowpoints or spearheads for hunting game or knives for cutting it appeared in all the tons of débris that we moved.

If we could have found time to finish this cave a labor of weeks—we might have unearthed many additional things of interest, possibly even a mummy or something else as spectacular. But as it was, we found enough to indicate that two distinct peoples had worked the ancient salt mines. We did not reach this conclusion from a study of superposed layers, for there were none that could help us in this, for each new set of ancient miners seem to have dug over quite thoroughly the refuse left by their precedessors in the effort to get at the salt ledge at the bottom of the cave. We deduced it from the fact that while many articles, such as "chews," strings, and especially hammerstones and stone picks without notches, were common in all the caves, pottery and notched hammers appeared in the first two only.

The pottery and the notched hammers were identified as Pueblo, and it was plain that the people of Pueblo Grande had done part, at least, of the mining in the first two caves.

But who were the others, the miners of Salt Cave. 3, the ancients who had no pottery, who held their rude stone picks in their hands? Were they Basketmakers? A fragment of a carved wooden club and several pieces of foreshafts for javelins, both typical of that ancient people, were found in the first salt cave, so that, whether they mined salt or not, we can be reasonably sure that they sometimes visited the valley of the Virgin, perhaps centuries before the Christian era.

The only hope of learning the truth lies in the thorough excavation of this last salt cave, and until this is done no one can tell whether the first operators of the "Virgin Queen" salt mine were Basket-makers or some other shadowy and less-known people of the past.

M. R. HARRINGTON

INDIAN USE OF THE SILVER GORGET

INCLUDED among the decorative silver objects in the collections of the Museum are a number of gorgets, varying in size, detail, and workmanship. A few of these crescent-shape ornaments were collected from the Chippewa, but most of them

by far came from tribes once inhabiting the Southern states, as the Alibamu, Shawnee, Seminole and Choctaw, while others were derived from the Miami.



Fig. 80.—Armorial gorget formerly worn by a guard of Louis XIII of France. (Courtesy of the Metropolitan Museum of Art)

Insignificant as these silver crescents may seem, at one time they were far more than ornaments, for they represent an historic period rife with intrigue, when the United States was attempting desperately to establish her sovereignty on frontiers where Great Britain and Spain sought to rule.

Originally, of course, the gorget was a part of the plate-armor worn by the nobility of Europe. It was the crescent-shape piece of steel riveted to the upper edge of the breastplate for guarding the space between the lower rim of the helmet and the top of the breastplate. When armor was discarded, the gorget, considerably modified, was retained as an insignia of rank. An example of an original armorial gorget is shown in fig. 80, being the frontplate gorget of a guard of Louis XIII of France.

In England the gorget as a symbol of military rank was first worn during the reign of Charles II (1660-85). Primarily colonels of infantry were the only officers privileged to wear it, and at that time it was of steel and nearly as large as the former breastplate. Later captains and lieutenants wore miniature gorgets patterned after the original style but made of gilt brass, gold, or thin steel studded with gold. During the latter part of the seventeenth century the gorget of a captain of infantry was gilt; that of a lieutenant and of an ensign, steel studded with gold. The wearing of the gorget appears to have passed out of fashion during the early part of the eighteenth century, but was revived somewhat later.

In 1796 a general order was issued to the British Army in which it was prescribed that the gorgets of all officers of infantry-of-the-line should be gilt with gold, with the King's cipher and a crown



Fig. 81.—Official British army gorget, circa 1778. (Courtesy of the Metropolitan Museum of Art)

in the middle, to be worn with a ribbon and a rosette at each end, of the color of the regimental facing. One of these official emblems is shown in fig. 81. The gorget was thus worn as a part of the

military uniform until about 1830, although in certain European regiments the custom still persists. In the Norwegian army the type gorget



Fig. 82.—Silver gorget worn by a Norwegian officer-of-the-day while on duty. (Collection of Mr. Thomas T. Hoopes)

depicted in fig. 82 is worn by the officer-of-the-day when actually on duty. The gorget in this case is of silver, the strap of red moiré silk, and the

shield of vertically ribbed red enamel with a design in gilt. A similar gorget of copper, suspended by a black leather strap, is worn by the non-commissioned officer assisting the officer-of-the-day.

The gorget as a symbol of military rank was apparently never officially adopted by the United States Army, although several independent military organizations have worn it as a part of their uniform. The officers of the Old Guard of New York wear the gorget today as a part of their full-dress.

So much for the military history of the gorget as pertaining to Europe and America.

When the British began to seek the friendship of the Iroquois, they adopted the old system of furnishing medals to the chiefs and head warriors. Later, when the Iroquois came to be regarded as practically an integral part of the British military system in America, especially during the French and Indian War (1754–63), in order that the chiefs might "hold tighter to the chain of friendship," the King, through his Indian agents, especially Sir William Johnson, gave commissions to various head-men, making them "gorget captains." Apparently this was not confined entirely to the Iroquois, because Schoolcraft, 1 at

¹ Schoolcraft, Personal Memoirs of a Residence of Thirty Years with the Indian Tribes on the American Frontiers, p. 303, Phila., 1851.

Sault Ste. Marie in 1828, speaking of "Wayishkee," a Chippewa chief, says, "This chief is a son of the celebrated war chief Waubodjeeg (the White Fisher), who died at La Pointe about thirty years ago, from whom he inherited a broad wampum belt and gorget, delivered to his grandfather, (also a noted chief) by Sir William Johnson, on the taking of Fort Niagara, in 1759."

During the Revolution the British continued the practice of making head-men "gorget captains," not merely as a matter of form, for they were certified with written commissions.

Thayendanegea, or, as he is more familiarly known, Captain Joseph Brant, the Mohawk 'Pine-tree-chief,' was one of these Indian officers. In his Life of Brant, Stone² says, "He was ordinarily called by his other name of Joseph Brant or 'Captain Brant'—the title of 'Captain' being the highest military distinction known to the Indians, and that, moreover, being the military rank actually conferred upon him in the army of the Crown." The Romney portrait of Brant, painted when the chieftain was in London in 1776, shows him in Indian garb, but with the captain's gorget at his throat as his insignia of military rank.

Nor was the system of granting commissions confined to the Northern tribes. Among the

⁹ Stone, Life of Brant, vol. 1, p. 148.

photostatic copies of documents relating to Indian affairs in southern United States late in the eighteenth and early in the nineteenth century, recently obtained by the Museum from the Archivo General at Sevilla, Spain, is a replica of a gorget captain's commission which reads as follows:

Mississippie District:

George the Third by the grace of God of Great Britain, France and Ireland, King Defender of the Faith.

To Illasatabie, Gorget Captain of the Chickesawbays.

Having Especial trust and confidence in your great Loyalty, abilities and Good Conduct and in consideration of your great Reputation and Influence in your Nation and the great Value you ought to have for such Honor, We do hereby Authorize and appoint you to be and act as Gorget Chief and Captain of a party of Chickesawbays, and We do likewise Require and Direct all our Subjects of what Class or Denominations forever to pay due Regard to you, the Said Illasatabie.

Subject to the orders of the Superintendent.

And we do likewise Require and Direct all and every of the Indians in your Said District to be obedient and pay due Regard to you, the Said Illasatabie.

This comission to continue during our pleasure.

Witness: our Trusty and Well beloved, Alexander Cameron, Esquire, our Agent and Superintendant of Indian Affairs on the Side of the Mississippie at Pensacola this 3d day of March in the Year of our Lord 1781 and in the Twenty first year of our Reign. Alexander Cameron.

By order of the Superintendant Jessee Nell, Secr'y.

That the newly-fledged nation of the United

States also tacitly recognized these gorget commissions is apparent in the wording of the speech sent to members of the Choctaw nation by George Washington, December 19, 1789, through members of a peace commission. In the salutation President Washington gives greeting to various headmen by name and ends it, ". . . . and all the other Medal chiefs, Gorget Captains and warriors of the Choctaw Nation."

There is not much doubt that the agents of Great Britain working covertly under the guise of traders, continued to carry on their troublesome operations among the border tribes, north and south, during the early years of the Republic, even when the two nations were at peace. It is therefore significant that most of the gorgets, either in their original form or somewhat modified by the passage of time and elimination of primal causes for issuance, were found among descendants of those tribes which had formerly lived and were living in that part of the country where British agents were most active. Even after the British ceased to issue official gorgets stamped with the royal cipher, the metal crescents engraved by white men, stamped or engraved with the initials of the makers and bearing single totemic designs of bears, wildcats, squirrels, beaver, etc., and made in all respects, save the first mentioned, like the

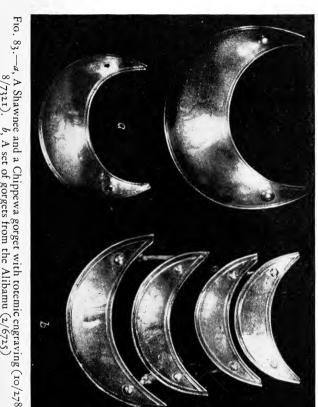


Fig. 83.—a, A Shawnee and a Chippewa gorget with totemic engraving (10/2785, 8/7321). b, A set of gorgets from the Alibamu (2/6725)

original insignia, continued to be circulated among the head-men of the tribes.

Two such specimens are shown in fig. 83, a. Both are fashioned after the military form (fig. 81), and both are engraved by white artists with single totemic designs, the upper and larger gorget having the representation of a bear, the lower one a squirrel. Both of these crescents were collected by Mr. M. R. Harrington from descendants of tribes which formerly were distinctly British in sympathy, and who long since were removed from their ancestral haunts. The larger example was found among the Shawnee in Oklahoma, which tribe was always strongly anti-American, the other came from the Chippewa in Michigan, who also were noted for their friend-liness toward the Crown.

It is the belief of the writer that both of these gorgets, as well as similar ones in the Museum collections, are of the type issued during the later decades of the eighteenth and the early years of the nineteenth century by British agitators, who, unable openly to give gorgets and commissions to chiefs and head-men of tribes nominally under the jurisdiction of the United States, yet wishing to retain their loyalty, distributed gorgets bearing totemic or other significant designs, instead of

those bearing the royal insignia, as a means of furthering their schemes.

Although not confirmed by documentary evidence, this belief is based on the fact that the gorgets in question are fashioned after the old military pattern: they are more substantial and larger than those made later for mere ornament; the animals and other figures portrayed thereon are the work of skilled engravers, and most of the gorgets bear engraved or stamped initials of the maker.

Curiously enough, the United States Indian agents apparently recognized the power of the gorgets as bestowed by the English on the headmen of various tribes, as is attested by the following letter:³

Washington, March 3d, 1832

Sir,

I am anxious to obtain the following marks for Indians of my agency, viz; two large medals, six 2d and ten 3d sizes do., also thirty six Gordgets and ten common flags. The Gordgets would be more acceptable were they to be fashioned after those introduced formerly by the British Government with the difference only of the eagle engraved upon each. The President directed a portion of the above articles to be furnished two

³ The copy of the letter is here printed by the courtesy of Mr. Halland Wood of the American Numismatic Society, who found it in the files of the War Department at Washington. The letter was addressed by Taliaferro to Secretary Lewis Cass, under whose jurisdiction the Office of Indian Affairs then was.



Fig. 84.—United States gorget, official issue, circa 1832. (2/6726)

years since, but there were none at that time in the office of Indian Affairs.

I have the honor to be, with highest respect, Sir Your Obt. Servt., Law Taliaferro Indian Agent at St. Peters.

A gorget answering the description of those suggested by Mr. Taliaferro, stamped from sheet silver, having an eagle with a shield in an ellipse surmounted by thirteen stars representing the original Colonies, and bearing the maker's initials "C.A.B." in each tip of the crescent, is shown in fig. 84. This specimen was procured by Mr. Harrington from the Alibamu now residing in Texas. These Indians, formerly a part of the Creek confederacy, were still living in their old territory in 1836, prior to their removal to the West, and it is possible that the gorgets in question, having been made at the suggestion of Mr. Taliaferro, were distributed among other agencies to counteract the influence of the British.

It would appear that certain of the tribes, the Iroquois for example, as soon as they were abandoned by their British allies after the Revolution, ceased to consider the gorget as a badge of distinction and did not bother to retain its form in their ornamental silverwork. This would seem to be indicated by the fact that the purely ornamental gorget, manufactured by native silversmiths of



Fig. 85.—Pair of purely ornamental gorgets made by the Seminole of Florida. (1/8253)

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other tribes, does not appear among the brooches, discs, rings, pins, etc., manufactured in such large numbers during the last century by the silverworkers of the Six Nations. On the other hand, the gorget as a purely decorative ornament, varying in size, degree of workmanship, and embellishment, does appear among the Seminole of Florida, and is made and worn by them today. A pair of large hand-made gorgets collected by Mr. Harrington from the Seminole is shown in fig. 85. These are lacking in ornamentation other than the embossed marginal lines, a conventionalized form of the original rolled edge of the armorial gorget, and small bosses, symbols of the bolt-heads of the original armor.

These two Seminole gorgets differ from those depicted in fig. 83, b, and those shown suspended from the neck of Osceola in fig. 86. The former four (fig. 83, b) were made by white artists; each bears the engraving of an animal, the upper one a bison, the second and third a beaver, and the fourth a horse. This set was collected from the Alibamu and in all probability was traded to the original owner not as a badge of rank but as objects of adornment only. Judging by the appearance of the gorgets worn by Osceola, they too were made by white artisans and were purely ornamental. They appear to bear no engraving or other



Fig. 86.—Osceola, the Seminole leader, wearing a set of orna mental gorgets. (After McKenney and Hall)

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mark of distinction, but were evidently a favorite ornament of the famous chief as they are portrayed both in this portrait from McKenney and Hall's work and in the painting by Catlin made shortly before Osceola's death in 1838.

Thus it would seem that the gorget, originally a symbol of caste and military rank and a highly conventionalized vestige of plate armor, passing from the armies of Europe to the Indian allies of the New World, descended from a badge of military power through a series of natural reverses to a mere ornament. It is doubtful whether any similar badge or decoration, having such a brilliant and romantic origin, can be traced down the ages to such an astonishing climax.

The writer wishes to acknowledge the aid given him by Mr. Fred G. Blakeslee of Hartford, Conn., Mr. Clarence B. Moore of Philadelphia; Mr. Thomas T. Hoopes and Mr. Stephen Grancsay of the Metropolitan Museum of Art; Mr. Halland Wood of the American Numismatic Society, and Mr. M. R. Harrington of the Museum of the American Indian, Heye Foundation, all of whom rendered material service in supplying data.

ARTHUR WOODWARD

ARCHEOLOGICAL OBJECTS FROM SHORA-KAPKOK, NEW YORK CITY

A TRACT of land at the extreme northern point of Manhattan Island, one of the few picturesque and wild spots that have withstood the persistent urban encroachment, has recently been acquired by the City of New York as a public park. Here are the Inwood rockshelters and shellheaps that have been known to archeologists for many years. It is proposed to preserve and to some extent restore the primitive shelters so that it may be seen how the early Manhattan Indians of the island lived at what was the rather extensive settlement known to them as Shorakapkok.¹

The site of the village with its surroundings was an ideal one for Indian occupancy by reason of its ready access to the Hudson; moreover, it was not a long journey by way of the Harlem to. East river and Long Island sound, and the mainland was within hailing distance across Spuyten Duyvil creek. An abundance of fresh water was supplied by springs which still exist and from which the place is locally known as Cold Spring Hollow.

¹ See Skinner, Archeological Investigations on Manhattan Island, *Indian Notes and Monographs*, 11, no. 6; Bolton, New York City in Indian Possession, *ibid.*, no. 7; Bolton, Indian Paths of the Great Metropolis, *ibid.*, Misc. no. 23.



Fig. 87.—Pottery fragments with white slip from Shorakapkok, New York City. *a*, Edge showing white shell and black *b*, interior; outside paddle marks; *c*, inside paddle marks. (14/7858)

Archeological investigation of the village-site by members of the Museum staff and by others has yielded many interesting artifacts in the past, and during the more recent work necessary in preparing the park for public use a large deposit of shells was uncovered which has revealed a comparatively small number of potsherds, together with objects of stone, bone, and antler. Among the sherds are some of special interest for the reason that they are covered with a white slip on both the outer and the inner surface (fig. 87), a method of treatment not hitherto known in the pottery of this region. Unfortunately the fragments are insufficient to reveal the size and shape of the vessel of which they were parts, but their curvature suggests a jar of large dimensions. No part of the rim was recovered. The pieces are three-eighths to half an inch thick. The compact clay was tempered with quartz grit and was fired very hard. It is remotely possible that, owing to the presence of some unusual mineral in the clay, the surface of the receptacle turned white during the process of firing, and yet, if such were the case, one would suppose that the whitening would be more irregular in thickness than it is.

A pronounced feature of many specimens of pottery found in the coast region is a thin superficial coloring of red or brown, due to the presence

of iron oxide in the clay. Sometimes this color penetrated the clay entirely, in other instances it is traceable only slightly beneath the surface, the differences doubtless having been due to the length of time or to the varying temperature to which the pottery was subjected in the firing process. In instances in which the color change has affected the surface only, there is a perceptible blending of the outer and inner tones, as may readily be seen by an examination of the edges of the fractures. The white slip referred to, however, is more in the form of a shell of even thickness on the surface of the paste, and not a blending of color such as would have been the case had the white material been mixed with the clay.

There is no reason to suppose that Indians were averse to novelty. Products of their handiwork show that they were not bound by inflexible rules in their various arts and industries, in which many opportunities arose for an expression of individuality; therefore it is possible that a piece of kaolin may in some way have fallen into the hands of a Shorakapkok potter and was readily converted into paint by mixing with water, when a new style of pottery finishing was suggested and carried into effect.

Although this conjecture may account for the presence of the white slip of the potsherds referred

to, there is reason to believe that this mode of treatment did not become popular, possibly be-



Fig. 88.—Bar amulet showing lateral drillings, and broken end and lengthwise drilling. Length, 2.75 in.
(14/7856)

cause kaolin may have been too scarce and hence too valuable for use in embellishing cooking-

vessels, or because the result was not regarded as satisfactory, since no similar specimens have been found in this region. Fragments of a typical straight-sided, pointed-bottom Algonkian vessel were found within a few feet of the sherds with the white slip, but they are of the usual brownish-red ware.

Another interesting feature of these pottery fragments is that they have been stamped with a corded paddle on both the inner and the outer surface.

Among the stone objects recently recovered at Shorakapkok is a bar amulet made of mottled steatite (fig. 88), provided at each end with the customary lateral and lengthwise drillings. A fragment has been broken from one end, but the damage is not sufficient to destroy the drilling. In its present condition the amulet is two and three-quarter inches long. In its perfect state it was not more than an eighth of an inch longer.

A fragment of a red slate gorget, three and threeeighths inches in length and with two perforations, a number of arrowpoints, flakes, and pitted hammerstones of the character usual to the region, and some roughly chipped stones of undetermined use, complete the list of stone objects recently found.

The exploration of the shellheap referred to was

conducted by Mr. Fred Orchard and Mr. Charles O. Turbyfill of the Museum.

WILLIAM C. ORCHARD

THE ARIKARA CONSOLATION CEREMONY

From ancient time the Arikara tribe had a custom, which is still sometimes practised, of consoling the mourners after a death. On such occasions some of the close friends of the bereaved family appoint a day and a place at which they will come together and have there those in whose behalf the function is held, for the purpose of showing sympathy toward them and to draw away the mourners' minds from their bereavement; to cause them to consider death as an episode which comes in the course of all lives; to cause them to lay aside in some degree the burden of their immediate grief, and to take up again the ordinary occupations, the usual pains and joys of everyday life.

Mother Corn has her part, and the largest part, in this ceremony, as in every episode of individual or of tribal life of the Arikara. In that tribe Mother Corn is connected with every event in the life of the individual from birth to death, and with everything in the community and tribal life throughout the annual cycle of the seasons, with all affairs, domestic and foreign, of the tribe.

When the neighborhood gathers to "comfort the mourners," or "wipe away their tears," as they say, provisions are brought for a dinner, for a community dinner is always one of the features of any public function. Some friend of the family goes to the priest of a sacred bundle and requests him to "open the bundle," and he slaughters a beef for the offering and the dinner, thus validating the request for the "opening of the bundle."

On October 14, 1922, I was in camp in the Arikara community of Armstrong, fifteen miles southeast of Elbowoods, North Dakota. A short time previous to this a death had occurred, and now on this day it was planned to "comfort the mourners." I was invited to be present, for, they said, "You, Pahok, are one of ourselves, so it is right and proper for you to take part with us in our affairs." (The Arikara, as well as the Pawnee, always call me by the name *Pahok* which had been conferred upon me some years before in the Pawnee tribe.) So I went and witnessed the ceremony.

Four-Rings was the officiating priest. The sacred bundle opened on this occasion was the one which is in the custody of an old woman named Štešta-kata. Four-Rings asked another old man, the leader of the Bear fraternity, in whose house

the ceremony was held, to assist him in the ritual. The house was built of logs and had an earthen floor. It was warmed by a wood fire burning in an iron stove standing in the center of the floor, and the sacred bundle was laid at the west, in the same relative positions as they would have had in the old-time earth-lodge of the Arikara. On the west wall, just above and to the rear of the sacred bundle, was suspended a bunch of wildsage (Artemisia gnaphaloides).

The ritual of this particular bundle is, in its movements, the reverse of those of the other sacred bundles of the tribe, so it is commonly designated as "The Left-handed Bundle." For this reason the stations of the fire-tender and the pipe-tender are respectively at the northeast and the north of the fireplace, instead of the southeast and the south.

When the ceremony was about to begin, a shovelful of live coals was brought from the stove and placed on the ground before the sacred bundle for the purpose of burning incense. Then the priest broke and pulverized some dried sweetgrass (Savastana odorata) from a braid of the same provided for that purpose, and sprinkled it upon the live coals. When the smoke of the incense began to rise the priest incensed himself first, and then his assistant did the same. This was done

by spreading the open hands over the incense, then they were rubbed together as though to wash them in the fragrant smoke, and a gesture was made as though gathering both hands full of the smoke and then spreading it down over the head and shoulders of the person in the common gesture of blessing. Then the priest incensed the sacred bundle and laid it back upon the altar, untied the binding thongs, opened out the bundle, and laid out in order the relics which it contains.

At this time a wooden bowl was brought and placed before the altar. Then the sacred relic pipe of the bundle was prepared, the bowl being attached to the stem and secured by a tie which was on the stem for that purpose.

Then a man was sent to fetch two small billets of wood which were laid in position parallel to each other about eighteen or twenty inches apart before the altar to serve as a rest for the sacred relic pipe, which was then laid on them horizontally, the bowl at the right (south) side of the altar, the mouthpiece at the left (north) side. That is to say, the pipe when laid in position had the bowl at the right and the mouthpiece at the left of the priest as he sat in the rear of the open sacred bundle.

While the man was gone to fetch these billets of wood on which to rest the pipe, the priest, kneel-

ing on one knee at the right-hand (south) side of the altar, held the relic pipe at an angle of fortyfive degrees with the bowl on the ground, the while he appeared to be engaged in silent prayer and meditation, after which he laid the pipe to rest on the two wooden billets.

Then some water was brought and poured into the wooden bowl. The priest then chewed a substance derived from some plant, the species of which I did not learn. Having begun the chewing of this substance, he took up the bowl of water and held it aloft, then lowered it and carried it sunwise round the fireplace and back to the altar, where he again elevated the bowl of water toward the sky and then lowered it to the ground where it was before, then dropped into it from his mouth some of the chewed substance. Then with his fingers he removed some more of the chewed substance and placed it in the water in the bowl. Then with a brush of what appeared to be small twigs he stirred the mixture in the bowl of water.

Now the priest took the ear of sacred corn from the bundle and leaned it against the bowl of water so that it pointed toward the fireplace.

At this time a bundle of a few stalks of a certain kind of grass was brought, and the priest laid this about eighteen inches to the right (south) of the bowl of water. Then he directed the fire-tender

to make certain cuts of the beef which lay a little to the east of the fireplace. This was done as he directed.

The priest and his assistant now prepared pipes and smoking material on a cutting board and placed them on the left (north) side of the lodge midway between the fireplace and the north wall of the lodge. A man was then called and asked to occupy this station as pipe-tender. It was his office to fill and pass out the pipes and to take them up again after each period of smoking. The material used for smoking was a mixture of the old-time Arikara tobacco (Nicotiana quadrivalvis), which is still cultivated in that tribe, and the inner bark of red dogwood (Cornus stolonifera).

Now a man was called upon to be the cook to boil the meat for the dinner. So he took a metal tub to use as a boiling pot, filled it half-full of water, and carried it out to the fire already prepared in the yard. Then he came in with another metal tub, and in this he carried out the meat and put it into the cooking vessel on the fire.

During the pause at this time the people who were present for the ceremony came forward one after another, bringing gifts which they laid before the sacred bundle at the altar, thus participating in the community of interest and endeavor

of the occasion. These gifts comprised articles of wearing apparel or any other objects of use or value, including money. These gifts were for the purpose, first, of compensating the officiating priest and his assistant, and the fire-tender, pipetender, cook, and waiters who served, and the rest to be distributed to old, sick, or needy people of the community.

When the bringing of gifts was finished, the people were all again seated and were quiet and attentive. Then the priest recited a part of what may be called the Arikara Book of Genesis. In the celebration of the ceremony of "comforting the mourners" this recital extends only so far as the account of the entrance of sickness and death into the world, and runs thus:

"All the different kinds and tribes of living beings, including the human race, the various kinds of mammals, all kinds of birds, of reptiles, fishes, all things which live and move in the water and upon and in the ground, and all the tribes of flowers and grasses, of trees and shrubs and every kind of plant, all living things, were first contained and took substance in the womb of Mother Earth.

"This closely restricted condition was grievous from the want of illumination and freedom. Little by little there came to all living things an

apprehension of the imperfection of their state, and more and more they felt the urge impelling them to emerge from their condition of inertia, from darkness and restraint, and to come out into the light and to attain liberty of movement over the surface of the earth.

"At that time of beginnings there were none of the living creatures as we see them now. There was no vegetation; no fishes in the waters, nor any birds or any insects in the air, or animals in the light of the sun upon the lap of Mother Earth. All still were concealed beneath her bosom. All things still were but in embryo. But these living creatures were exerting themselves and making all endeavor, for they had strong aspiration to come up into the light and to attain freedom. So they constantly continued to pray and grope, and to do their best to explore and to find some way to accomplish the purpose.

"All creatures were striving and doing what they could, each in its own way; but they met many difficulties and many obstacles which were hard to overcome. The mole tried to bore through the ground to the surface, and did succeed in doing so; but when he pushed through and faced the light, he was blinded by the brightness of the sun. He drew back from the dazzling light, and so today the mole still lives just below the surface of the ground.

"Then the people, that is to say, living things of all kinds, began to come forth from the opening of the earth. But before all had come out the earth closed upon part of them and kept them still restricted, so it is that badgers and gophers and all such animals, and the snakes, still have their dwelling in the ground.

Now the living beings which had come forth upon the surface began to move and to travel westward. In their journeying they came to a great water. Here was another difficulty to be overcome. All their powers must be exerted. Those which could fly over, as the fowls of the air, were required to do what they could. Others tried to make their way through the waters; but before all had overcome the difficulty, a part of them were trapped and overcome by the waters, and so there are still the people of the waters, such as the fishes of all kinds, and all other creatures which live in the water.

"Now the free-moving beings which had succeeded in coming through or crossing over the great water, traveled on again upon their course. After a time they came to a great, dense forest. So here their way was again impeded. Here, again, as always before, they prayed and called upon all the elements of the universe, and tried their best to open a way to pass through this great

forest which seemed impenetrable. And some made their way through this difficulty; but some again, as in previous cases, did not win through, and these remained in the woods, and still live there at the present time. These people are the deer, the moose, bears, porcupines, raccoons, bean mice, and all the forest-dwelling kind, large and small.

"And the God blessed the people of the human race and showed them still greater favor. To those who earnestly sought with prayer and fasting, to know his will, he revealed mysteries and gave power. He gave them the Sacred Bundle and the pipe to use in prayer, and taught them religion and instructed them how to worship, and we follow that teaching to this day. And God gave them roots of many kinds of plants from Mother Earth, that these should be medicines for the healing of wounds and the cure of sickness.

"And God blessed all the living creatures on the earth, the trees and vines and flowers and grasses, all the growing, living things upon the lap of Mother Earth which look up to the Sun; all the animals on the earth and in the waters, and the fowls of the air. He blessed all these, the plants and the animals, and said that they are all friends of human beings, and that we should not mistreat them, but that all creatures have their place in the

universe, and should be treated with respect. It was taught that the pipe should be used to offer smoke to all things which God had blessed. And so it has been done from ancient time through all the ages till the present time."

Now here we have an allegory. It is said that there were two creatures, two dogs, which were sleeping, and so were unnoticed and forgotten when smoke-offerings were made. Afterward these two dogs, whose names were Sickness and Death, awoke. And when they awoke they were grieved and angry because of the neglect. Then they said to the people, "You neglected us and made no smoke-offerings to us. Therefore in punishment of your carelessness and neglect of us we shall bite you. So you and all people who follow after you shall be bitten and shall suffer from Sickness and Death. And we will never leave you. We will follow after you and be with you always. 'So,' they said, 'Sickness and Death shall be always ! among the people of this world."

"And we see that it is even so with all things in this world. Our powers increase and then diminish; we rise and go forth in fresh strength; and then we lie down in weariness; we rejoice in health and then languish in sickness; the sun rises and sets; the brightness and splendor of day are followed by the darkness of night; the moon waxes

and wanes; the flowers bloom in the springtime and are cut down by the frosts of autumn; the wind blows, and again there is calm; water rises as a vapor and floats in the air as clouds, and again falls as rain upon the earth; springs rise in the hills, and their water flows down into the rivers. So changes come to all things in this world; all things die and are born anew.

"So to you who mourn, I say your grief also shall pass away. If you continue to mourn day after day it will but give you more of sorrow. Now wipe away your tears and grieve no more."

When the priest reached that point in his recital which told of the prevailing power of sickness and death in the world, the women began to wail. The priest concluded his recital with this argument of the transitory conditions of life and all things in the world. He ceased speaking and for a moment gave way to his feelings by weeping. Then he recovered himself and said "Nawa!" which is the equivalent in the Arikara language for the words "So be it." When he said this, the wailing ceased.

Then the assistant priest was called to prepare the relic pipe, and the pipe-tender was called to take up the pipe from its rest and hand it to the assistant priest. The assistant priest untied the cord and removed the bowl from the stem. Using the mussel-shell for a cup, he took into his mouth some of the medicine water from the wooden bowl; then with one of the stalks of grass which had been provided, he cleaned the pipe-stem and pipe and reattached the relic pipe to the stem and replaced the pipe upon the pipe-rest before the altar. Then the pipe-keeper was directed to bring all the common pipes to the altar, where they were also cleaned and were then returned to the pipe-tender's station.

Then the mussel-shell cup was wiped, and some medicine was taken from a bag and placed in the shell. The pipe-tender was next called to take up the relic pipe and to carry it round the fireplace and hand it to the assistant priest at the south side of the altar. The lighting stick was carried to the fireplace and ignited and brought back to the assistant priest who lighted the sacred pipe with it and made smoke-offerings to the four quarters, to the earth and to the sky, after which the pipe was carried round the entire circle of the company and the mouthpiece was presented to each person, who then either drew smoke from it and stroked the stem toward himself with both hands to invoke its blessing, or merely performed the gesture without actually drawing smoke.

After this communion smoking, one of the mourners, a daughter of the deceased woman, was called to come and stand before the sacred bundle

at the altar, with her face toward the fireplace. The ear of corn from the sacred bundle had been placed in the bowl of water into which some herbal extract had been injected as before mentioned. This ear of corn was taken from the bowl by the assistant priest and held above her head, then passed down the right side of her body, then down the back, down the left side, and down over the front, and replaced in the bowl of medicine water. The mourner was then directed to take the ear of corn from the bowl and pass it along between her lips, drawing thus into her mouth the medicine water which dripped from the ear of corn, and then to dip from the bowl with the mussel-shell and take the water into her mouth. She was now directed to walk to the fireplace and there to stand and bathe her face and hands with the mouthful of water she had taken from the ear of corn and from the mussel-shell out of the wooden bowl. Each of the mourners now came forward in turn and did likewise. So the tears of their mourning were washed away. One old woman, after she had performed this rite, commenced to weep. The fire-tender was directed to wipe away her tears for her and comfort her. This he did, and then dismissed her, lifting his right hand aloft, open, with palm forward in the gesture of peace.

After all the mourners had performed this rite,

the assistant priest took the wooden bowl, dipped some of the water from it with the mussel-shell, drank it, then with his lips drew some of the dripping water from the ear of corn and replaced the ear with the other relics of the sacred bundle.

Next he took up the bowl and carried it to the northwest quarter, and there poured out a little of the water, then to the northeast quarter, then to the southeast quarter, then to the southwest, at each quarter pouring out a little of the water. Then he drank again from the bowl and set it down where it was before by the altar. Thus all the four quarters of the universe, and the assistant priest for the people, were made participants with the mourners in the sorrow-cleansing efficacy of the medicine water.

At this time the priest left the room and went outside, upon the housetop, and called aloud the following proclamation:

"Come all ye, for Mother Corn has now completed the service for those who have been mourning! These people shall be no longer in sorrow, for Mother Corn has wiped away their tears. Come all ye, for Mother Corn has prepared a feast for all, for the old and the young! And this feast is for all those who are relatives of this family which was in sorrow and mourning. Come, for everything now has been done in the way ordained

by Mother Corn in ancient time! Come! Come all those who have gone before us and are living in another world! The feast is now ready, for Mother Corn has comforted the family which was afflicted with sorrow, and now there shall be no more mourning."

While the priest went outside and proclaimed from the housetop, the assistant priest blessed the food of the feast, which was about to be eaten, by taking a small piece of meat from that which had just been brought in from the cooking fire, and this he carried about the lodge circle, stopping to cut off and place a particle on the ground at each of the four quarters, then to the earth in the center at the fireplace, and a particle was offered to the sky and then placed in the fireplace.

The pipe-tender was called to take up the relic pipe of the sacred bundle, and bless himself from it, and then to bring to it from his station all the common pipes and have them blessed from the

relic pipe.

Then the priest, seated at the rear of the sacred bundle and regarding the sacred relics contained in it, made an exhortation to the mourners and all

the assembly. He said:

"I wish to call to your minds all the blessings which we enjoy from Mother Corn. Think of all she has done for us in the past summer. It is from her bounty that we have been given a good crop of corn to supply our need for the coming winter. And she has provided for us many other good things. We live happily by her wise and good teachings. Today this Sacred Bundle is open before you all, and Mother Corn is speaking to you from it and she calls to you and counsels you in wisdom to walk in the right road through life. In these days so many persons are forgetful of the teachings of Mother Corn and are indifferent to the celebration of her mysteries. We ought to have the Sacred Bundle opened at least once on twice every year, because from it we are taught the good things from heaven, even as we see here today. Mother Corn has wiped away the tears of this family which was in sorrow. And these people will receive a blessing from Mother Corn in this feast, for Mother Corn rejoices in the feasts and gifts which are given in her name. And we have asked Mother Corn that grief and sorrow be taken away from us."

When he finished speaking, the people in the assembly called out "Nawa!"

Then the fire-tender, as chief waiter, took meat and broth from the cooking-pots and made readyl to serve all the people. Meanwhile the assistant priest addressed the assembly, saying:

"I wish to say a few words concerning the part

I have taken in the work here today. It is not of my own will and desire that I have done this. It is not that I wish to put myself forward. It is a hard thing, a thing difficult and exacting for anyone to go through. But there are now but a few of us living who know anything of the ritual of this Sacred Bundle, and I am one of those few. And that is why Mother Corn has given me a part in this service. And I assure you all that I shall always do my best to assist in giving instruction whenever in future the Sacred Bundle shall be opened."

The people responded "Nawa!"

Then the fire-tender served food to the priest and his assistant, and then the fire-tender and his assistants served the boiled meat and broth, bread, and coffee to all the people.

After the priest and his assistant and the men mourners had eaten, the pipe-tender filled and lighted the pipe and passed it to them all in turn, so that all smoked in communion.

When they had smoked, the pipes were cleaned and put away, the sacred objects of the bundle were replaced in their covering, and the bundle was again tied up. When the people had finished eating, they arose and passed out of the house, speaking amiably with one another as they passed. Dusk was now coming on, and the people started for their homes.

A Teton Dakota was there present as the guest of an Arikara family with which he was visiting. Not understanding the Arikara language, nor knowing their customs, this scene was quite strange and unintelligible to him. He had been seated on the opposite side of the room from me, and had observed me there, so, as soon as we had gone outdoors, this Dakota came directly to me to ask me what the ceremony was and what it meant, for, he explained to me, being a visitor and a foreigner among the Arikara, he did not understand their language, and their customs differed from those of his people. The only common means of communication between the Dakota and the Arikara is the English language, of course. And he was desirous to learn from me what this Arikara ceremony was and what it signified.

MELVIN R. GILMORE

A PRE-PUEBLO SITE ON COLORADO RIVER

OF ALL the ancient Puebloan settlements whose remains may still be traced along the banks of the Virgin and Muddy rivers in southern Nevada, one of the most primitive, and probably one of the oldest, stood on the Colorado river at the very mouth of the Virgin. The course of the Colorado



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at this point is approximately east to west, the Virgin entering from the north. To the west of the junction of the two streams lies a broad flat. not more than ten or fifteen feet above the river level and consequently subject to floods. Here are various signs of old Paiute camps, and of one fairly extensive Pueblo settlement situated on the Virgin about a quarter of a mile from the Colorado: but this last has been so much disturbed by flood-waters that little can be learned from it. The main Pueblo village however, or at least the best preserved one today, lay on the flat top of a high gravel point, projecting out to the very brink of the Colorado, on the east side of the mouth of the Virgin, a point at least sixty feet high, which must have furnished a refuge from any ordinary high water.

This place was discovered by the writer, with Mr. Fay Perkins as guide, in April 1926, during one of the reconnoissance trips which were occasionally made during the course of our explorations at Pueblo Grande de Nevada.

The indications of the ancient settlement covered roughly a triangular plot of ground, lying along the western edge of the point beginning a hundred feet or so back from its tip, a plot which would measure about 415 feet from north to south and some 275 feet from east to west across its

widest part, which lay to the north. Plainest of all these indications were shallow depressions, most of them circular, many of them very dim, ranging usually from seven or eight to ten or fifteen feet in diameter. About twenty feet from the western edge, however, we discovered one depression much larger and plainer—thirty-one feet in diameter, eighteen inches deep, surrounded by a distinct raised rim or embankment.

A closer inspection of the ground over the whole area revealed many minute sherds of pottery lying among the gravel, and occasional chips and fragments of flint; while it was observed also that plainly artificial collections of bowlders occurred in various places, especially around the edges of the depressions.

The shallow, smaller depressions we interpreted as marking erstwhile pit-dwellings—we had seen such before in the vicinity of Pueblo Grande—but the deep, large one was something different, and we resolved to use the few hours before nightfall of the day of our first visit in testing it. With only two of us to work, there could be no hope of exploring the entire thing, so we resolved on a test pit near the center. At a depth of three feet ten inches below the bottom of the depression, or about five feet four inches below the level of the ground outside, we struck an adobe floor, upon

which lay black-on-gray Puebloan sherds, a few plain sherds, charcoal, and some animal bones. We had no time to dig to the wall to determine its character, but it was plain that we had found a circular chamber more than five feet deep and fully thirty feet in diameter—much larger and much deeper, and in size more like a true kiva or ceremonial chamber, than anything we had previously seen in that district. Of course there was no time to look for typical kiva features, such as fire-screens, ventilators, benches, or *sipapus*, but these could hardly have been expected in a kiva of this early period.

The test in this kiva, if such it was, occupied the first afternoon; but we returned another day with a team and wagon, bringing proper tools, camera, and enough provisions to enable us to remain two days longer, which was all the time we could spare from other essential work.

On this visit we tested some of the shallower depressions, which, as we had suspected, proved to represent semi-subterranean pit-dwellings. One small example was completely excavated. It measured only seven feet two inches in diameter, with a depth of fifteen inches, but it had a good adobe floor, and the sides of the hole, which formed the wall from the ground level down, were plastered with adobe. From the surface of the

ground upward the walls had evidently been made of adobe in which were set bowlders ten or twelve inches long and three or four inches in diameter. There was no fireplace, although some charcoal appeared on the floor; also a few potsherds and a bone awl.

For our next test we tried one of the larger depressions. It was too large to completely clear out with our limited time, so a trench was dug across it from west to east. This proved to be a pit-dwelling fifteen inches deep, similar to the first one, adobe floor and all, except that it was much larger, measuring fourteen feet ten inches in diameter. As sometimes occurred with large rooms in this region, posts had been needed to support the walls and roof, and these had left unmistakable holes in the floor along the wall. But the most interesting feature of the room was a storage-pit on the northwest side, about two feet ten inches from the wall. This was bottle-shape, with a small opening covered with a stone slab about ten inches in diameter, neatly chipped to fit, and set flush with the floor. Raising this stone cover and removing the dirt that had sifted into the pit, we found that below the neck it expanded, showing a diameter of fourteen inches instead of about eight inches, and that the bottom was eighteen inches below the level of the

floor. The pit had been carefully lined with adobe plaster; but it vielded only a worked slab of bone and a few bones of food animals. room itself were found typical Puebloan pottery fragments-black-on-gray and plain,-some red paint, and a few animal bones.

The third building tested turned out to be of entirely different character, although, judging from most of the pottery it yielded, it belonged to the same period. The pit averaged thirteen inches deep, and was roughly rectangular instead of circular, with a width of about twelve feet from east to west and a length of seventeen feet. There was no adobe floor-only the bare, naturally cemented gravel, and the compact gravel sides of the pit were not plastered. From the ground upward the walls of the structure had been wattleand-daub, supported on large driftwood poles from the Colorado-sticks five or six inches in diameter. This we learned from imprints on the blocks of fallen clay wall material which filled the pit, blocks hardened and preserved by the action of fire. Doubtless this structure had been burned. From the charred materials found, the roof must have been constructed of arrow-weeds and tules supported by poles, and probably covered, as usual, with a layer of adobe. Most of the pottery appearing in this structure was similar to that

found elsewhere on the site; but near the middle of the building lay many fragments of a large, crude, plain bowl with widely flaring rim—a new type to us. Among the miscellaneous articles found in the digging was a simple bone awl.



Fig. 90.—Skeleton found on a Pre-Pueblo site at the mouth of Virgin river, Clark county, Nevada

While working along the western edge of this wattle-and-daub house a badger hole was encountered in which lay an unmistakable human finger-bone. Suspecting that this might come from a skeleton not far distant, we traced the hole back,

and soon found it. The grave had been laboriously dug down into the cemented gravel, three feet long, one foot nine inches wide, and two feet nine inches deep, and in it lay the skeleton of an aged man, partly sitting, partly reclining, heading south, with his legs slightly tipped toward the west. The left arm was slightly bent, the right lay extended at the side. The skull was protected by a flat slab of stone on each side and another over the top.

The body had been swathed in fur-cloth robes, of which crumbling traces remained; these had been tied about the body with bundles of fine twine which was too greatly decayed to tell whether the material had been Indian hemp or cotton. About the head had been a fringed headband made of similar twine, and at the sides of the head two ear-ornaments made of discs cut from Oliva shells from the Pacific, each with a perforation in the middle, through which passed a knotted string, which unfortunately crumbled at the touch.

Near the right hand of the skeleton was a dagger-like implement made of bone; a primitive tubular stone pipe, straight, like a cigar-holder; the crumbling fragments of a turtle-shell, and a mass of yellow paint which Mr. Perkins, who is an experienced prospector, identified as iron sulphide.

The skeleton was in fair condition, and the back of the skull showed none of the artificial flattening sometimes seen in the skulls found at Pueblo Grande.

This completed our tests at this site, except for the excavation of a circular storage pit near the northwestern edge of the village—a pit three feet ten inches deep and four feet eight inches in diameter, but which contained nothing of interest.

Our conclusion that this settlement was one of the oldest in the region, older even than Pueblo Grande de Nevada, rests on two classes of evidence, the houses and the pottery.

First of all, we have the fact that the houses, although yielding typical Puebloan pottery, are all of the primitive pit type, scattered about without definite arrangement, and without any trace of the rectangular rooms, built in connected rows, usually found at the other sites.

Secondly, we have the fact that the pottery from this site consists only of plain ware and of gray bowls with designs in black on the inside, designs showing rather crude brushwork, without any trace of the corrugated ware so abundant on most of the other sites.

The crudeness of the houses, even when associated with Pueblo pottery, does not of itself neces-

sarily prove great age. But when we learn that corrugated pottery, in its simplest form, did not originate until the late Pre-Pueblo period, we have evidence of real value.

So when we find a Puebloan village with crude pit-houses only and with black-and-gray but no corrugated pottery, we can be reasonably sure that it belongs to the early Pre-Pueblo period, and is really quite old, as Pueblo ruins go.

M. R. HARRINGTON

CROW WAR BUNDLE OF TWO-LEGGINGS

THE sacred bundle herein described was owned by Two-Leggings, chief of the River Crows, from whom the writer obtained it in the summer of 1922, when its former owner communicated the following information regarding it.¹

The bundle was originated by Weasel-Moccasin, who transferred it to Wolf-Chaser, an elder brother of Two-Leggings, who in turn transferred it to Two-Leggings at the time he first started to go to war and before he had acquired a medicine of his own.

The cover of the medicine-bundle (fig. 91) depicts the vision of Weasel-Moccasin, in which a

¹ This interesting object has been generously presented to the Museum by Mr. Wildschut.—Editor.

horse was seen standing in the sky and which afterward gave him the medicine represented by the bundle. While in the sky the horse was struck by lightning, terminating in eagle-claws. The painted stripes on the cover indicate the sky, while the yellowish paint is symbolic of clouds.

In the pack are found the several articles (fig. 92)



Fig. 91.—Cover of the Crow war bundle. (14/6481)

to which Two-Leggings gave the following symbolic meanings:

(1) A feather necklace was tied round the horse's neck, by the power of which the horse may feel as light as a feather and therefore be able to run faster and easier. (2) The same principle is symbolized by an eagle-plume attached to a hawk-feather, which is tied to the horse's tail. (3) The little bag of herbs is used as a medicine

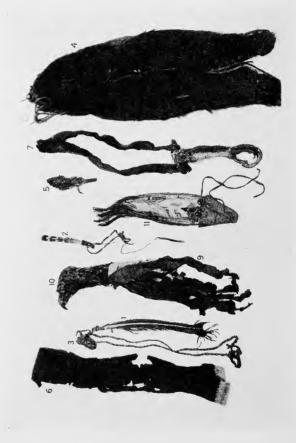


Fig. 92.—Objects composing the war bundle of Two-Leggings. (14/6481)

for the horse whenever it becomes weary: a pinch of the herbs is placed inside the horse's mouth and in its nostrils for the purpose of renewing the animal's strength and wind. (4) The bear-hair and bear-claws fastened round the horse's neck are supposed to be potent in keeping the horse fat and in prime condition, even during an otherwise exhausting ride. (5) The swallow is significant of the power of that bird to fly speedily through a great flock of its kind without touching one; the owner of the medicine therefore ascribes this power to himself and his horse in being able to evade a number of enemies without mishap. (6) The blue cloth represents good luck in general. (7) A strip of otter-skin used as a necklace, attached to which is an eagle-claw. This necklace was worn over the left shoulder and under the right arm. The eagle-claw is symbolic of the lightning striking the horse and ending in eagle-claws, as described in the vision, as well as of the power of the eagle to pounce upon its enemy, a power which is thereby given to the owner of the bundle. (8) A horse's hoof (not shown in the illustration) is supposed to impart the power to make easy the capture of enemy horses. (9) The colored ribbons, attached to No. 10, are emblematic of the sky as seen in the vision. (10) When going into battle the owner ties to his chest the eagle's head con-

tained in the bundle and repeats the related songs and prayers. By wearing the eagle in this wise, not only is the flight of the bird symbolized, but the owner absorbs the power of flight, vision, and noiseless yet swift approach, to the confusion of the enemy and his horses. (11) An eagle-feather head-ornament, worn attached to the back of the head, has the same symbolic value as No. 10.

During the ceremony the owner smoked a pipe filled with a mixture of buffalo-chip, sweetgrass, and tobacco, pointed the stem toward the earth, and expressed the wish that he wanted to be on earth a little longer if only for the purpose of taking revenge on the enemy. After expressing this desire the stem was pointed in the direction of the enemy while the owner said, "Their hearts are weak and we will catch them easily."

WILLIAM WILDSCHUT

A NORSE BRONZE IMPLEMENT FROM CANADA

That a curious corroded implement of bronze, now in this Museum, may have come to America in a "dragonship" sailed by Norsemen four or five hundred years before the days of Columbus; is the opinion of Mr. L. H. Kylberg of Stockholm, Sweden, who has made a special study of

the subject. At least, he says, the object is of distinctly Scandinavian style, and was made between 600 and 1000 A.D.

This object would have attracted little attention if picked up in Norway or Sweden, but such is not the case. It was found in Canada, near Brantford, Ontario, which makes it at least possible that it formed part of the equipment carried by the Norse discoverers of America.

The specimen is a wedge-shape tool of bronze, of the kind known to antiquarians as a palstaff, and measures about $3\frac{3}{4}$ inches in length, with a width of $2\frac{3}{10}$ inches at the edge of the blade. It is provided with a socket in the base, by means of which it could be fitted to the butt of a pike or a spear, or to one end of a staff. On one side may be seen the remains of a ring or loop for the reception of a cord, the other end of which was doubtless attached to the shaft to prevent loss of the implement should it have worked loose. Along each side may be seen faint ridges left by the mold in which it was cast.

Such an implement, outside of its possibilities as a weapon, would have been useful in chopping ice, in digging, or perhaps even in breaking up and splitting firewood.

The story of its finding is a rather unusual one. In the fall of 1907 the writer was making some

investigations among the Iroquois tribes on Grand. River reserve, near Brantford, Ontario, when her received word that a certain Cayuga Indian known as James Jamieson had died, and that his family wished to sell his Indian costume and ornaments.



Fig. 93.—Bronze palstaff of Scandinavian origin, found in a field on Grand River reserve, Ontario. Length, 3.75 in. (11/273) the surface of plowed fields in the Indian reservation along

I visited this family on October 5, and after I had succeeded in buying a number of specimens of ethnological interest, the Indians brought forward a rough box containing flint arrowheads and other ancient stone specimens, asking me if wished to buy "some real old Indian things" which Jamieson had picked up on the surface of plowed along reservation

Grand river, presumably on the sites of ancient Indian villages. I looked over the dusty contents of the box and found the bronze implement among the arrowpoints, pottery fragments, and broken

stone celts. When I told the family that the object was not of Indian origin, they seemed much surprised, and stated that the old man had picked it up with the other things, and they had naturally thought it to be of Indian make. I bought it for seventy-five cents.

The specimen is clearly not of American origin, but is of ancient European—Mr. Kylberg says Scandinavian—make, which leads to the question, How did it get there? How could an ancient European bronze implement of a type that had passed out of use long before the discovery of America by Columbus, find its way to a prehistoric Indian village-site now occupied by corn-fields of modern Indians on an Indian reservation in Canada?

Several possibilities present themselves. Perhaps, for example, it was brought over by some white man in modern times and lost on the field where found. This does not seem probable on account of the remoteness of the spot and the rural character of the white people adjoining the reservation. The land has been Iroquois property for more than a century, and it seems most unlikely that a modern white man who would be interested in acquiring such an object should lose it at a remote ancient village-site on a modern Indian reservation.

Or, possibly some Indian trader, noting that the tribes liked copper, may have brought a number of such objects from Europe to trade with the Indians in the early days of colonization, and it may have fallen into native hands in this way. This is rendered doubtful from the fact that the Indians obtained implements of iron at an early date from the whites, and very soon perceived its superiority to copper implements, and bronze looks very much like copper. For this reason it seems doubtful that the Indians could have taken enough interest in such goods to make it worth the traders' while to import them. Another important point in this connection is the fact that the object seems to have been found on a pre-Colonial village-site occupied by people who still used stone-age implements, presumably before the day of the traders.

Then there is the possibility that the specimen was not found where claimed, but had been given or sold to the old Indian by some white man. This seems very unlikely from the fact that it was regarded as an Indian implement, was kept in a box full of flint arrowheads, potsherds, and fragmentary stone implements, considered of little value, and was sold for a pittance.

Perhaps more plausible than any other explanation is the possibility that some early Norse

explorer along the coast may have lost it or traded it to the Indians, and that it was traded in from tribe to tribe until it reached the village on Grand river where it was finally lost by its native owner, to be found again perhaps a thousand years later by the Cayuga, James Jamieson.

M. R. HARRINGTON

THE GAME OF DOUBLE-BALL, OR TWIN-BALL

The game of double-ball, or twin-ball, was played by girls in many different Indian tribes. The implements of the game were the twin-ball and playing sticks. The twin-ball consisted of two small, light balls of equal size, each about three inches in diameter, connected by a thong about eight inches long. The balls made by the Indians for playing this game were made of soft deerskin and stuffed with feathers, hair, or some such light and elastic material. The playing stick was about three feet in length and curved at the end. The ball must be played entirely with the stick. To touch the ball with the hand while in play constituted a foul.

The ground on which the game was played was long, like a football ground or a hockey ground. At each end was a goal marked by two posts or

two mounds. The ball was put in play in the middle of the field and the game required that it should be played thence to and through between the goal posts at one end or the other. If the ball were played outside the goal posts and beyond, it must be played back into the field and then properly on through between the goal posts before the side could score on it.

The game was played by two contending sides of eight or more girls on each side. The rules and regulations were very adaptable to various conditions. Two parties playing the game might make their regulations and rules by mutual agreement as to the number of players on a side, the length of ground, and so forth.

We may suppose two opposing sides, which we may call the Reds and the Blues, were playing. We may designate the two goals as A and B. The Reds were facing goal A and the Blues were facing goal B. The twin-ball was put in play between them. As it was tossed into the air the Red players advanced and tried to engage the ball as it fell and to send it over the heads of their opponents, the Blues, and on toward goal A. But the Blues at the same time tried to intercept it and send it toward goal B. Thus the two sides were actively contending, surging forward and backward, the ball now moving nearer to one goal and then

perhaps being in turn pressed back toward the other. It was a very active game, requiring the highest coördination of eye and all movements. One may well fancy that the two connected balls would present an infinite number of different positions toward the playing stick, and therefore necessitate the greatest celerity and accuracy in engaging the connecting thong with the playing stick.

MELVIN R. GILMORE

DAKOTA MOURNING CUSTOMS¹

Whenever a child died the parents gashed their own legs as a sign of mourning. This was the custom for parents and other near relatives. With a sharp-pointed knife they would gash the calves of their legs until they bled profusely. Taking hold of the skin with the thumb and finger of one hand they would lift it up and with the other hand they would insert the point of the knife blade and thrust it through. While bleeding from these wounds they made some little flat sticks which they skewered into and through these punctures in the skin and left them there.

¹ Translation, obtained by Dr. Melvin R. Gilmore, of one of the Dakota texts of George Bushotter in the archives of the Bureau of American Ethnology, Washington.

Then they walked about, bleeding from the wounds and crying from grief.

Women as well as men thus gashed themselves all around between knees and ankles. The women mourners not only thus gashed themselves, but they also bobbed off their hair all around, at the neck. So they looked very miserable as they walked about mourning. They also dressed only in their poorest old worn and ragged garments while they were in mourning.

RECENT ACCESSIONS BY GIFT

From Mr. Irwin Hayden:

Thirty-one potsherds. Casa Grande, Gila valley, Arizona. From Mr. Allen B. Cross:

Bell pestle; smoothing stone. Shinnecock hills, Long Island.

From Mrs. Thea Heye:

Basket. Hupa. California.

Wooden carving representing a woman nursing an infant. Makah. Washington.

Two small oval baskets; oval basket; two circular baskets; five circular baskets decorated with red and black feathers; four circular baskets decorated with black feathers; circular basket decorated with red feathers; two circular baskets decorated with red and black feathers, and shell and glass beads; oval basket decorated with black feathers and shell beads; oval basket decorated with red feathers; two oval baskets decorated with red and black feathers. Pomo. California.

Bottle-neck basket. Mono. California.

Small basket decorated with glass beads. Pima. Arizona.

Two large bowls, white ware with red and black painted decoration inside and outside; jar with flaring rim, white ware with red and black painted decoration. Zuñi, New Mexico.

Very large jar with scalloped rim, white ware with red and black painted decoration. Keres. Santa Ana, New Mexico.

From Ye Old Curiosity Shop:

Fish-net of sinew with wooden floats and antler sinkers attached. Eskimo. Kotzebue sound, Alaska.

From Mrs. Burlock Edkin Rabell:

Jar of unbaked natural colored clay. Gay Head tribe of the Wampanoag.

From University of Washington:

Plaster cast of stone in University of Washington Museum in Seattle. Original from the Quilliute Indians. Oriental designs supposed to have been inspired by the swan.

From Mr. Daniel C. Beard:

Pair of strips and uppers for moccasins made of silk decorated with moose-hair and glass beads. Huron.

From Mr. Harry Squires:

Pestle; eight arrowpoints. Bridgehampton, New York.

From Mr. Edward Borein:

Wooden masher for salmon eggs; clapper rattle. Makah. Washington.

From Mr. Ernest Schernikow:

Five wash drawings of Indian heads.

From Mr. H. E. Sargent:

Scoria mortar with three legs and small conical pestle. Owned by Captain Jim, last full-blood at the Round House Rancheria near Grub Gulch. At his death in 1925 it

was acquired by William Bassett who gave it to Mr. Sargent. Mono. California.

From Mr. E. Bloch:

Thirty-two cylindrical beads of white composition; seventeen tablets of green composition with Mexican head in relief. Humboldt county, California.

From Miss Hope Ives Collins:

Seventeen arrowpoints. Branford, Connecticut.

From Mrs. James H. Cathey, in memory of her son, Julian C. Cathey:
Nine axes; four celts; chunkey stone; two quarry blanks;
three pieces of steatite; polishing stone; sharpening
stone; three pipes; two hundred and seventeen points;
sixty-nine potsherds; twenty-two pieces of pipestem.
Sylva, Jackson county, North Carolina.

From Mr. Marion Eppley:

Gambling set consisting of: (a) basket, (b) set of four counting sticks, (c) set of three peach-stone dice, (d) set of three peach-stone dice, (f) set of four plum-stone dice, (g) set of four plum-stone dice painted red, (b) set of four plum-stone dice painted red. Porcupine-tail hairbrush; porcupine-tail hairbrush with beaded decoration. Crow Montana.

From Mr. I. H. Larom:

Deer-bone toss-and-catch game with copper pin. Crow. Montana.

From Mrs. Clair Sommerville, in memory of her father, Dr. P. W. O'Brien:

Large grooved ax. Westchester county, New York.

From Mr. Kennedy Bozeman, in memory of Alanson B. Skinner:

Chipped celt; two hammerstones. Kreicherville, Staten Island:

From Mr. Reginald Pelham Bolton:

Stone cone; two bell pestles. Slant, Scott county, Virginia.

From Mr. James Terry Duce:

Small jar with animal-figure handle. Bouquete, Province of Chiriqui, Panama.

From Rev: Douglas L. Rights:

Twenty-seven potsherds; fragment of steatite dish. Roaring River, Wilkes county, North Carolina.

Six potsherds; fragment of miniature jar; fragment of deer bone awl. Steelman place, west bank of the Yadkin River, twenty miles west of Winston-Salem; North Carolina.

Four potsherds; five arrowpoints. Winston-Salem, North Carolina.

Five potsherds. Town Fork Creek, Stokes county, North Carolina.

From Mr. F. S. Dellenbaugh:

Ninety photographs.

Pottery canteen, red ware. Zuñi, New Mexico.

From Mrs. Reginald Barclay:

Woven sash. Huron.

From Mr. F. J. Judd:

Forty-three arrow and spear points. Watertown, Litch-field county, Connecticut.

From Mrs. Alice L. de Santiago:

Small zemi; three pottery dish handles representing a head. Porto Rico.

From Mr. Franklin S. Smith:

Three pairs of moccasins; pipe and stem; club; pipe-bag; necklace. Sioux. South Dakota.

Twelve arrowpoints. Missouri.

Twenty-five lantern slides; seventeen photographs; seventeen negatives.

RECENT LIBRARY ACCESSIONS

- Apunchic Jesucristoc chuscu evangeliocuna o sea los cuatro evangelios traducidos al Quechua de los departamentos de Huánacu-Ancash, junto con el correspondiente Castellano. London and New York, 1923.
- [AYMARÁ.] El evangelio de Jesu Christo segun San Lucas en Aymará y Español. Londres, 1921.
- Bompas, Rt. Rev. W. C. Lessons and prayers in the Tenni or Slavi language of the Indians of Mackenzie river in the Northwest territory of Canada. London, 1892. (In syllabic characters.)
- [—] Lessons and prayers in the Tenni or Slavi language of the Indians of Mackenzie river, in the North-west territory of Canada. [London, 1890.]
- [—] The epistles. Translated into the Teni (or Slavé) language of the Indians of Mackenzie river, northwest Canada. By the Right Rev. the Bishop of Mackenzie River. London, 1891.
- [—] The acts of the apostles, and the epistles, translated into the Tenni or Slavé language, for the Indians of Mackenzie river, north-west Canada. By the Right Rev. the Bishop of Mackenzie River. In the syllabic character. London, 1891.
- [—] Manual of devotion, in the Beaver Indian dialect. Compiled from the manuals of the venerable Archdeacons Kirkby, by the Bishop of Athabasca, for the use of the Indians in the Athabasca diocese. London, [1880.] (Insephalocic characters.)
- [---] Cree primer. London, 1893. (In syllabic characters.).
 [---, and Reeve, Rev. W. D.] The gospel of St. Matthew translated into the Slave language for the Indians of north-

translated into the Slave language for the Indians of northwest America. In the syllabic character. London, 1886.

- [Bompas, Rt. Rev. W. C., and Reeve, Rev. W. D.] The gospel of St. Mark translated into the Slavé language, for Indians of north-west America. In the syllabic character. London, 1886.
- [----, ---] The gospel of St. Luke translated into the Slavé language for Indians of north-west America in the syllabic character. London, 1890.
- [---, ---] The gospel of St. John, translated into the Slavé language, for Indians of north-west America. In the syllabic character. London, 1890.
- [Brett, Rev.. W. H. Lord's prayer, St. Luke, Apostles' creed, in Caribi. London, n.d.]
- [—. Lord's prayer, St. Luke, Apostles' creed, in Warau. London, n.d.]
- [——] Simple questions on the historical parts of the holy Bible, for the instruction of the Acawoio Indians at the missions in Guiana. London, 1898.
- [---] Questions on the apostles' creed, with other simple instruction, for the Caribi Indians at the missions in Guiana. [London, n.d.]
- [---] Simple questions on the historical parts of the holy Bible, for the instruction of the Caribi Indians at the missions in Guiana. [London, n.d.]
- [---] Questions on the apostles' creed with other simple instruction, for the Warau Indians at the missions in Guiana. [London, n.d.]
- [---] Adaieli wacinaci. Okonomuntu ajiahu. London, 1856. (The gospels in the Arawak language.)
- [—] Questions on the apostles' creed, with other simple instruction, for the Arawâk Indians at the missions in Guiana. [London, n.d.]
- [---] Ki-eyboróri-gun poh eygamánin serra main Hcawóio Indian language. First part of Genesis and the gospel of St. Matthew, with supplementary extracts from

- the other gospels, including the parables of our Lord. London [n.d.].
- [CARIB.] Uganu buiditi kaysi St. Mark. The gospel according to St. Mark in Carib. London, 1901.
- [—] Uganu buiditi kīsi St. John. The gospel according to St. John in Carib. London, 1902.
- [COPPER ESKIMO.] Okautsit tussanaktut Mark. (St. Mark's gospel in the dialect of the Mackenzie River Eskimo. Tentative edition.) London, 1920.
- [Cree.] The first catechism of Christian instruction and doctrine in the Cree language. London, 1911. (In syllabic characters.)
- [Dakota.] Hanahanna gais htayetu cekiyapi token ptecena eyapi kte cin ga litany . . . Printed for use at the Sioux mission, Manitoba, Canada . . . London, 1889. (Prayers in the Dakota language.)
- [Erdmann, Friedrich.] Testamentetokak Hiobib aglangit, Salomoblo imgerusersoanga tikkilugut. [Old Testament Job's his book and Solomon's his great songs coming to.] Stolpen, 1871. (Printed for the use of the Moravian mission in Labrador.)
- [Eskimo.] The book of Psalms [translated into the Baffinland] dialect of Eskimo, in syllabic characters.] London, 1917.
- [——] The gospel according to St. Mark [in English and Eskimo (Labrador dialect)]. London, 1916.
- [—] The New Testament of our Lord and Saviour Jesus Christ [translated into Baffinland Eskimo, in syllabic characters]. London, 1920.
- [---] A light to lighten the Gentiles . . . For the use of the Eskimo in Ungava. Compiled by a missionary of the Church of England in Ungava. London, 1910. (In syllabic characters.)
- Frost, Rev. F., ed. The Ojibeway church hymn book . . . London, 1924.

- GARRIOCH, Rev. A. C. The gospel according to St. Mark, translated into the Beaver language. London, 1886.
- Manual of devotion in the Beaver Indian language. London, 1886. (In syllabic characters.)
 - The gospel according to St. Mark. Translated . . . into the language of the Beaver Indians, of the diocese of Athabasca. London, [1886]. (In syllabic characters.)
- Griffin, Rev. J. T. Cree daily Bible readings. Approved by the Bishop of Moosonee for use in Moosonee diocese. London, 1920. (In syllabic characters.)
- Harrison, Rev. Charles. St. Matthew gie giatlan las. St. Matthew, Haida. London, 1891.
 - Old Testament stories in the Haida language. London, 1893.
- [HORDEN, Rt. Rev. John. The New Testament in Moose Cree. Reprinted in syllabic characters from the edition of 1876.] London, 1922.
 - Bible and gospel history in the language of the Cree Indians of north-west America. London, 1892. (In syllabic characters.)
 - The book of common prayer and admistration of the sacraments and other rites and ceremonies of the church . . . together with the psalter or psalms of David. Translated into the language of the Cree Indians of the diocese of Moosonee. London, (1922). (In syllabic characters.)
 - A collection of psalms and hymns in the language of the Cree Indians of north-west America. Revised edition. London, (1925). (In syllabic characters.)
- A grammar of the Cree language, as spoken by the Cree Indians of North America. London, 1881.
- The church catechism in the language of the Cree Indians of north-west America. London, 1892.
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NOTES

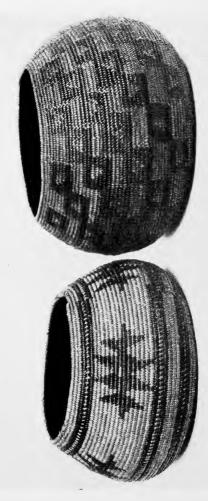
Dr. Lothrop's Pottery of Costa Rica and Nicaragua, published in two volumes as Volume VIII of Contributions from the Museum, has recently been distributed and already has received most favorable comment by students of aboriginal American cultures. This work embodies the results of the author's research during fifteen months in the countries of which it treats, as well as of inspection of the principal ceramic collections in American and Europe, excepting those of Sweden, Germany, and Austria, which are partly available through other publications. The first part of the work is devoted to a discussion of linguistic distribution and a résumé of the early historical accounts of the culture of the tribes treated. In Part II is defined the archeology of the Pacific region and of the Atlantic coast of Nicaragua, and the ceramics are described in detail, while Part III is given to a discussion of the Highland area and southern Costa Rica in similar fashion. The results of these studies are summarized in Part IV. In appendices are found a descriptive list of archeological sites, translations of important

Spanish documents, notes on the late Alanson Skinner's excavations in Costa Rica, and a bibliography. The work, fully indexed, consists of xxvii + 529 pages, 205 plates (of which sixty are in colors), and 290 text figures.

Great interest in the collections of the Museum was manifested by members of a deputation of Rumanians during a visit on August 17th. This delegation, consisting of twenty-eight professors, students, and ex-ministers of state, were guests of the Carnegie Endowment for International Peace and were visiting the United States for the purpose of studying American institutions with a view of expanding the educational activities of their own country.

The two excellent baskets illustrated in fig. 94 have recently been acquired by the Museum. The first example (a), of Luiseño origin, five and three-quarters inches high and eleven and a quarter inches in diameter, is of coiled weave with grass foundation and with the design consisting of split stems of maidenhair-fern (Adiantum sp.); the other, seven and three-eighths inches in height and twelve inches in diameter, is a Juaneño specimen.

An interesting accession to the Museum collections is a shallow, elliptical wooden bowl



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Fig. 94.—Antique baskets from Mission Indians of California. (a, 14/7491; b, 14/7490)

of the Omaha, nine inches in diameter, which is said to have been used for more than a century in the medicine-lodge whenever a sacred feast was held, it being the custom for each attendant to bring his own bowl. The bowl illustrated in fig. 95 belonged to a member of the Pebble Society, or In'kugthiathin.



Fig. 95.—Bowl of a member of the Omaha Pebble Society. Diameter, 9 in. (14/6606)

Mr. Donald A. Cadzow, who has been making ethnological collections among the tribes of northern Canada, has recently forwarded to the Museum a number of valuable objects, including a buffalo bundle, from the Prairie Cree.

Through means supplied by Mrs. Thea Heye, Mr. Charles O. Turbyfill of the Museum is con-

ducting successful excavations among the ancients. Cherokee mounds in the vicinity of Murphy, North Carolina.

By the acquisition of the August F. Mayer collection of archeological objects from Tulare county, California, the Museum material from that locality has been greatly augmented.

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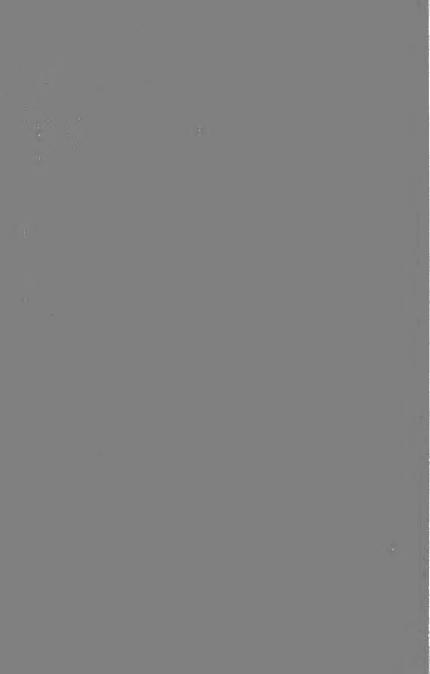
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